Clinical medicine & surgery

THE AMERICAN JOURNAL OF

CLINICAL MEDICINE

Vol. 29, No. 10 OCTOBER, 1922

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V.29
no. 10

BETTER to own a few true friends than
all the gold refined:
Better the love of one leal heart than all
the rubies mined:
Better the hurt of many wounds than fear
to join the fray:
Better than years of nothingness to LIVE
one surging day!

G. H. C.

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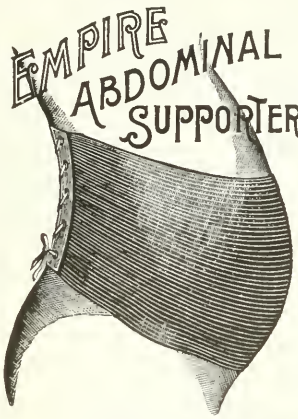

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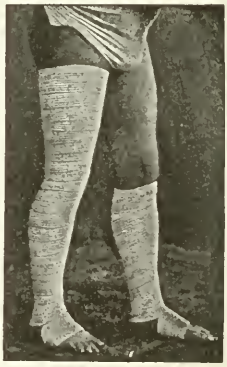

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144 CONGESTIVE DYSMENORRHŒA

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A prominent professor of therapeutics and doctor of medicine writes:

Is an antiseptic — increases resistance to certain infections — has laxative effect — checks fermentation. "Yeast . . . . is more or less of a gastro-intestinal antiseptic, increases the movements of the bowels, cleans a coated tongue, stimulates the production of white corpuscles, and often seems to aid in combating various streptococcic and staphylococcic infections. Hence it is a valuable treatment for septicemia and for boils and carbuncles.

"Besides the laxative effect of yeast, it has the ability to change the flora in the intestine and to more or less check fermentation. It should be much more frequently given in illness in which there is intestinal disturbance, especially if it is associated with constipation."

A professor in a great American University writes:

Rich in B-vitamin—beneficial effects. "The claim made for their use (yeast cakes) rests on a perfectly firm basis, they are rich in "B" vitamin, the proteins of the yeast cake are of good quality and the cake contains no ingredients poisonous to man. Many people are reporting beneficial effects from their use."

A noted professor and author of well-known text books says:

Food value of yeast—protein valuable. "The food value of yeast does not rest alone upon the vitamin present. The protein of the yeast is itself a very satisfactory type of protein so far as the nutrition of mammals is concerned. It is made use of in the tissues of man to as great an extent as is the protein of milk or meat, two of our most staple foods."

Send for free copy of the new brochure on Yeast Therapy. Use coupon, addressing THE FLEISCHMANN COMPANY, Dept. H-10, 701 Washington Street, New York, N. Y.

New brochure on yeast therapy sent on physician's request

The Fleischmann Company
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701 Washington St., New York

Please send me free a copy of the brochure on yeast based on the published findings of distinguished investigators.

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PROTEOGENS

Proteogen No. 1—For inoperable malignant and benign tumors, including cancer, enlarged prostate and fibroid tumors.

Proteogen No 2—For rheumatic conditions, not complicated with specific infections, accompanying or prior to the rheumatic symptoms.

Proteogen No. 3—For Tuberculosis.

Proteogen No. 4—For Hay Fever and Bronchial Asthma.

Proteogen No. 5—For Dermatoses, not due to specific infections.

Proteogen No. 6—For Chlorosis.

Proteogen No. 7—For Secondary Anemia.

Proteogen No. 8—For Pernicious Anemia, except the aplastic type.

Proteogen No. 9—For Simple Goitre.

Proteogen No. 9-A—For Exophthalmic Goitre.

Proteogen No. 10—For Syphilis.

Proteogen No. 11—For Gonorrhea.

Proteogen No. 12—For Pneumonia and Influenza.

Proteogen No. 13—For Pyorrhea.

Proteogen No. 14—For Diabetes.

Clinical Experience

is after all, the deciding factor in determining the worth of any remedy, and a tabulation of reports from physicians all over the world shows that

PROTEOGENS

have been used with favorable results in 67% of the cases treated.

If you have a case with any of the diseases listed, that is not responding to ordinary treatment, remember the Proteogens can be relied upon for beneficial results in almost seven cases out of ten.

Your patients expect you to use every possible means to effect a cure, and because of the high percentage of favorable results obtained, it is to your advantage to use the Proteogen treatment regularly in your practice.

We have some interesting literature on the Protein Therapy and the use of Proteogens. Shall we send it to you?

THE WM S. MERRELL COMPANY
FOUNDED 1828
CINCINNATI, U.S.A.

THE CRITICAL AGE

"The menopause is not due simply to insufficiency of the genital glands but is the expression of an 'endocrine crisis' complex, varying in different persons, of which the said insufficiency of the genital glands is the central factor but, with it, other glandular disturbances play an essential part."—*Maranon.*

The menopause, therefore, is a functional pluriglandular derangement and is best treated by pluriglandular therapy.

In hypotensive cases use

HORMOTONE

and in high blood pressure cases

Hormotone Without Post-Pituitary

Dose:—One or two tablets three times daily before meals.

G. W. CARNRICK CO.

410 Canal Street New York, N. Y.

The American Journal of
CLINICAL MEDICINE
Dependable Therapeutic Fact for Daily Use

Vol. 29, No. 10 October, 1922

Can Congress Be Convinced?

ON the next page (p. 710) is reproduced, in smaller size, a full-page advertisement which appeared as one half of a double-page spread, in *The Washington Post* of Friday, September 16. This advertisement was bought and paid for by the chemical manufacturers of the United States, as a last resort in their endeavor to convince Congress that the American chemical industry was in peril.

How many Senators or Members of the House read this page, we cannot say, but we do know that the situation was a desperate one and that this public appeal for a square deal was fully justified.

Many long and weary months have been spent in trying to enlighten Congress on the real facts, as they exist, in the dye and chemical industries of the United States. Able men, whose entire business is at stake, have lived in Washington for weeks and weeks, at their own expense, working with all the earnestness, zeal and sincerity of combatants in a life and death struggle, trying to secure adequate protection for American chemistry.

This fight for a fair break in tariff legislation has attracted the attention, sympathy and active cooperation of thousands of professional men, business firms and publishers throughout the United States.

The struggle has been a clean one, an unselfish one, and bearing no taint of monopoly, either existing or hoped for.

And still Congress remains unconvinced.—

To one not familiar with political life and influence in our national capitol, can hardly be described the terrific strain, the bitter experiences, and the despair which have been suffered by those who have fought, and are still fighting with their backs to the wall, in a seemingly futile and uneven struggle, to keep for America the only fruits of victory which were won in the World War.

The men who have given of their talent, their time and their money, in this nerve-racking endeavor to present the facts in Washington, have not been parties to any paid lobby, nor has there been a trace of greed or thought of unfair gain.

And still Congress remains unconvinced.—

Both the Senate and the House, recently voted to appropriate hundreds of millions of dollars of your money and mine, to reward, with a bonus, the soldiers who fought in the World War. The boys who carried on deserve such a reward and more—there is no doubt about it—but, what did they win and where will

THE WASHINGTON POST FRIDAY, SEPTEMBER 15, 1922

Shall America's Organic Chemical Industry Be Destroyed?

Shall the United States Again be Dependent on the German Chemical Monopoly for Medicines, Drugs and Dyestuffs?

Shall America's war-born chemical industry be thrown to the junk heap in order that Germany and other countries may progress in chemical science and manufacture while the United States abandons the industry?

Shall the United States be left defenseless against chemical warfare attack for lack of a home chemical industry?

Shall America again be made dependent on foreign-made synthetic organic drugs and medicines, in defiance of the urgent demand of the physicians of the country that home-produced synthetic drugs and medicines be protected as a home production?

The agreement yesterday afternoon of the Senate and House Conferees on the coal tar and synthetic organic drug and medicinal schedules means that these questions have been answered "YES" by the Tariff Conference.

While England, France, Belgium, Italy and even Germany are maintaining actual embargoes to protect and develop their home chemical industries, the Conference Committee agreement, if approved by the Senate and the House of Representatives, means that the American industry is to be surrendered and lost to the United States.

Rates have been approved for Coal Tar Chemicals that mean the end of the synthetic organic chemical industry in the United States.

Synthetic organic drugs and medicines made from other than coal tar are placed at 25% ad valorem on foreign prices, which means the free listing of these products, and the surrender of their manufacture to Germany.

The end of the synthetic organic chemical industry in the United Sates MEANS:

The unemployment of thousands of workmen.

The forfeiture of their profession by hundreds of American college trained and factory schooled chemists, who are the backbone of the chemical science of the United States.

The abandonment of millions of dollars worth of chemical plants built to create a chemical industry in the United States.

A defenseless country by land and by sea so far as chemical warfare now or in the future is to be contemplated.

SHALL CONGRESS APPROVE THESE RESULTS?

Synthetic Organic Chemical Manufacturers Association
of the United States

CHARLES H. HERTY, President

it be if American industries are not protected? Is it not a sacred duty of Congress to conserve the fruits of victory, so dearly paid for, in men and money?

Congress has been shown, beyond the shadow of a doubt, that the American medicinal-chemical and dye industry was born of the Mother of Necessity, and was raised to its present youthful stature with every promise of protection that the government could give. And, now—while the world wonders and some laugh—the crown of thorns is being shaped and the

cross is being built by those congressmen who still remain unconvinced.

—

The Importance of Chemistry.—But the struggle is not over—right will prevail Whether or not the present Congress will do its duty to American chemical industries, remains to be seen. Whatever the outcome, the truth will be emblazoned in the minds and memories of men in the days to come.

Chemical research is the key to industrial achievement and is our greatest weapon of defense, should war again threaten. The things we eat and wear, the papers we read, the lights we read by, the glasses we read with, and the things we read about are practically all dependent in some measure upon chemical research. Shall we be dependent upon foreign chemical research for them, or shall we encourage our American chemists?

The health of our nation, your health and mine, the lives of our children and friends, may depend, some day, upon the proper application of remedies uncovered in our study of organic chemistry. The *protection* of our families, as well as their health, depends upon our chemical preparedness. Shall this industry be destroyed?

Such are the vast possibilities of chemistry for life or death, that every man, woman and child should become vitally interested in the proper protection of our chemical independence. May it not be said, in years to come, that American lives have been laid upon the sacrificial altar of political ambitions or of lack of understanding.

To sacrifice an industry is as unreasonable as it is unnecessary; but, to sacrifice human lives is a crime which becomes a dark blot on history's pages.

You ask why Congress is still unconvinced.

—

Why Is Congress Still Unconvinced?—Many of our Senators and Members of the House are now, and have been, convinced for a long time, that American chemical industries should be protected. They have been loyal and faithful to the cause, because of the principles involved, and they have tried to influence their associates. Other members of Congress are becoming impressed, not so much because of the pressure of public opinion back home, but because they are just beginning to have confidence in the honesty of those who have tried to explain the rather technical angles involved in the chemical situation.

It has not been an easy story to tell or to grasp. There are reasons for doubt on both sides, and the path to a clear understanding has been beset with difficulties.

Those who still remain unconvinced may have honest convictions for their unbelief, but it is difficult to understand why some Senators and some Congressmen, simply because of their political affiliations or through life-long prejudice against socalled high tariff, will refuse to recognize so imminent a peril as the destruction of our medicinal and dye industries.

Some Senators and House Members seem to be impossible in the arbitrary stand they have persistently taken, and obstinately maintain on the question of adequate duty and proper protection.

—

The Story of the Tariff Bill.—The history of this particular legislation is most interesting. It reads like a serial story, continued from month to month and filled with dramatic episodes of sudden and rapid changes in the fortunes and misfortunes of those involved. Now, confident of the victory; now, plunged in the depths of despair and threatened with ruin, the advocates for a protected independence have run the gamut of emotions until they are now near the point of prostration. But still they are undefeated.

Were it not for certain Senators, like the Hon. Mr. Moses, of New Hampshire, and the Hon. Mr. Smoot, of Utah, who have fought the advocates of the embargo with all of the ability at their command, the cause would long ago have been won and our independence from Germany assured.

A small state has an equal voice with our larger states in the Senate, and this is as it should be; for, a United States Senator is sent to the nation's capitol to legislate for all the people, whether they live in Utah, New Hampshire, New York State or Illinois. Their salaries are paid with your money and mine, even though their socalled constituency may be reckoned by the votes of the people within their own borders.

—

The Antagonists.—You ask again, why it is that Senator Moses, representing the loyal state of New Hampshire, one of the original thirteen, is so viciously opposed to the request of American chemical manufacturers and the medical profession. The great textile mills of this country are located in New Hampshire and these are served by importers of German dyes. For a few cents a pound difference in the price of American and German dyes, the entire American chemical industry would be imperiled, and our Country left defenseless in a military emergency. For

the saving of a few dollars in profits, not only our infant dye industry, but our medicinal chemical independence would again be surrendered to foreign monopoly and domination.

The difference in the price of a suit of clothes, whether the dye which colors it be German or American made, wouldn't pay for a good cigar, but it is true that some people still prefer the German dyes; not because they are better (for they are not) but because they are German and may cost a few cents a pound less now, until our own dye industries are destroyed and the German cartel, or chemical trust, again controls American markets.

So much for New Hampshire. What about Utah? Well, if the people of Utah knew the facts (and they will some day), their loyalty to the broader welfare and health of a nation, including the health and happiness of their own families, may affect in a measure their loyalty to Mr. Smoot. Mr. Smoot was very active in obtaining higher tariffs for wool and sugar but has failed to recognize or assist in the greater task of protecting the health and safety of his constituents and of the nation.

Both, Senator Moses and Senator Smoot have delivered impassioned addresses on the danger of an American monopoly in dyes and chemicals, if an embargo is granted to prevent the dumping of German dyes and medicinal chemicals. But, have they considered the high pre-war prices on medicinal chemicals when Germany had a monopoly, and have they compared these prices with the present highly competitive American prices, which have gradually been reduced, notwithstanding the fact that America has had but five brief years of experience in perfecting processes and speeding up production as against fifty years of German experience and government subsidies? Take Barbital for instance. This well known and widely used drug sold in America before the war, as Veronal, at a cost of $20.00 a pound. The American-made protected product now sells for $10.00 a pound and is identical in chemical composition. Because of the low wages now paid in Germany, with which American manufacturers are unable to compete, Barbital can be made abroad for as low as $1.80 a pound. Considering the difference in the currency of America and Germany, only an embargo or a duty of 90 percent based upon American valuation can protect American Barbital. Destroy the American industry now and Barbital will surely go to $20.00 a pound again as soon as Germany has re-established its monopoly.

Some Senators and Members of the House claim that the American chemical industry has now had time to get on its feet and should be able to compete with Germany without an embargo or a prohibitive tariff. Do these gentlemen understand that it takes years of research work to perfect delicate chemical processes in an experimental laboratory, and many years more to convert laboratory methods into commercial production on a large scale, with yields which will show some profit? Do they not know that Germany has had a fifty years' start on America? While wonders have been accomplished in this country, to the everlasting credit of American chemists, still, a child of five can hardly be expected to be self-supporting and, without parental protection or further education, be thrust into the world to struggle against the most insidious and unfair forms of competition that can be conceived in the minds of men. The difference between our currency and German marks and the vast difference in the wage scales of the two countries make competition impossible at this time.

—

So Far No Profits Have Accrued.—As a matter of fact, and record, easily and openly accessible to all, the firms which undertook to make dyes and medicinal chemicals in this country during and since the war, have not made profits beyond a fair and reasonable return for the time and money invested—no more than any other legitimate enterprise and far less than many peace-time industries.

Many chemical firms are just beginning to enjoy a fair amount of success, after years of struggle. But, these same firms now face ruin, if they are not adequately protected.

It has been said that some chemical manufacturers profiteered during the war and made millions of dollars. The experience of one firm in the east, may be cited as an example of many others, to answer this absurd argument.

—

An Illuminating Instance.—The firm in question was solicited by the French government, in 1914, to make picric acid for explosives, before we went into the war. They were pushed for production and importuned to enlarge their plant, in order to speed up deliveries. When the United States entered the war, the entire outfit of the plant was taken over and greater quantities of picric acid were demanded. Every penny of profit, and more too, was put into additional buildings, laboratories and warehouses. A great plant was built up, in a few months, to satisfy the urgent needs of the war department—and then the armistice was signed. Picric acid had helped to win the war, but picric acid was no

longer needed. The firm was left with a monument of bricks and mortar as a reward for its work.

The sequel of this true story is interesting. What to do with this immense plant, became the question. How could it be converted to peace-time pursuits and the manufacture of products other than for purposes of war?

The Gratitude of the Government.—Chemical research was started, and continued a year or more, before the answer was found. In the meantime, the big plant was practically idle, and the banks refused to loan the principals any more money. It was found that certain intermediates might be made with some of the idle equipment, these intermediates to be sold to American dye manufacturers. And so the industry, which had gone into the hands of the receiver, was revived and the accumulated war debt (instead of war profits) was beginning to be paid off. The industry was protected against German invasion by the embargo and licensing provisions of the Emergency Tariff Bill, which was enacted following the war. Then came a bomb shell out of a clear sky. Bear in mind, that the United States government had promised this firm, and others, ample protection in its reconstruction endeavors. It was promised that the Selective Embargo would be made a part of the Tariff Bill. One gray morning, the news came from Washington that the proposed Embargo feature of the pending Fordney Tariff Bill had been defeated in the Senate. Today, this firm and others, which helped to win the war, are figuring what their piles of brick and motar, and useless equipment, will bring at auction, if Congress cannot be convinced that they are entitled to more adequate protection, than is provided in the re-written tariff.

—

When the Embargo was defeated in the Senate, the Bursum Amendment was substituted, which Amendment, if adopted, would have given American manufacturers adequate protection, with ninety percent duty based upon American valuation, which was essential. Notwithstanding the desperate efforts of German propagandists to defeat the Bursum Amendment, it was twice voted upon, and twice passed in the Senate. It looked like a well earned victory for American chemistry, and a well deserved blow at German efforts to again control, by monopoly, our Chemical industries. But this assurance was only temporary.

When the Tariff Bill finally went to the Conference Committee, appointed by the Senate and the House, in some manner, the Bursum Amendment was killed, and the Embargo was again re-instated. The House quickly rejected this portion of the report when it came out of the Conference Committee. The Embargo feature, itself, might have been adopted if its opponents had not cleverly linked its fortunes with the vote on Potash, which had the opposition of the entire farm bloc.

The Conference Committee, now thoroughly disgusted, followed instructions and eliminated the Embargo, or licensing feature, entirely, substituting in its place duties approximating sixty percent, based on American valuation on certain medicinal chemicals and dyes made in this country. The non-coal tar synthetics, which included Barbital, were omitted entirely from the report.

This action on the part of the Conference Committee meant ruin to the American cause, as facts and figures, carefully compiled from the most authoritative sources, conclusively proved the fact, that, in view of the greatly depreciated German currency, German dyes and medicinal chemicals could be laid down in America, at a price which it would be impossible for American manufacturers to meet, even with a sixty percent duty added.

The duty on non-coal tar synthetics was subject to a still lower level, based upon foreign valuation only, which is no protection at all.

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Physicians will recall the high prices on Salvarsan, Atophan, Veronal and Novocaine, which prevailed when these drugs were imported from Germany, prior to the war. These high prices should now be compared with the present lower quotations on American-made drugs, identical in chemical composition, but sold under the American-made names of Arsphenamine, Cinchophen, Barbital and Procaine. This lesson is too recent and too vivid for the medical profession to soon forget.

When the second report of the Conference Committee was accepted by the House, the American manufacturers were in desperate straits, and it was at this time that the display advertisements, already referred to, were inserted in the Washington papers.

—

As Matters Stand.—This seemingly long, but really brief review of the outstanding events of the past few months, in tariff legislation, brings us to the present time (September 20) when the Senate has accepted the Tariff Bill. The latest word as this is written (and we have just received a telegram from Washington), is, that a new Bill

has been introduced into the House, known as the Wadsworth-Tilson Resolution, offering temporary relief in the form of a ninety-day Embargo, which will give American manufacturers a chance to meet the new situation, and to prevent immediate dumping of millions of pounds of German chemical products into American markets, before Congress, the Tariff Commission, or the President, have had an opportunity to realize that the provisions of the new Tariff Bill will not really protect, nor prevent the ruination of our much needed American chemical industry.

It is hoped that the Tilson Bill will be passed, and that by December, when Congress meets again, other Senators and House Members will be convinced that the interests of American chemical manufacturers, as well as the medical and allied professions, represent the best interests of the entire nation.

The Position of the Professions.—A most gratifying aspect of this desperate fight for independence is the splendid attitude of the medical and allied professions, including the druggists, the veterinarians, the dentists and the hospitals. National, state and county medical societies, drug, pharmaceutical and veterinary associations have joined in the struggle to protect American-made medicinal chemicals and have lent their active support. When it is considered that over a quarter of a million people are represented in these influential professions, it is not strange that hope still exists for a complete, or at least a partial victory, for American independence.

Were it not for the most diabolically clever and insidious German influence, which keeps itself hidden behind smoke screen, but at the same time makes itself felt, the victory would have been won long before this.

It is predicted, now that the medical and allied professions have put their hand to the plow, that they will not turn back, nor relax in their vigilant efforts, until Congress is convinced.

One hundred and twenty-five thousand doctors and forty-five thousand dentists care for the health of one hundred million people, and their influence, when aroused and organized is not to be held lightly.

Congress can be convinced.

[Our readers will be informed of the further progress of this important legislation, and, should you wish to know how your Senators and Congressmen have voted, the information will be supplied by this journal.—Ed.].

*The Tilson Resolution failed to pass, and the fight goes over until December.

THE PRESS AND THE CHEMICAL INDUSTRY

The extent to which research and commercial chemistry affect practically all arts, industries and professions, is not appreciated in this country as it should be. This is evident from the apparent lack of support which The Chemical Foundation is receiving from the press. The medical profession is, naturally and necessarily, familiar with the close relationship existing between the practice of medicine and chemical research.

For this reason, physicians have been quick to appreciate the importance of The Chemical Foundation and its work, when it was explained to them.

In Europe, and particularly Germany, it is realized by all, including the Government, that chemistry is the great key industry, and is entitled to all the encouragement, support and publicity that can be given it. One reason for Germany's ability to battle, almost single-handed and alone, with practically all the great nations of the world, was because of the intensive development of her great chemical and dye industries, which were quickly converted to the production of explosives, poisonous gases, nitrogen from the air, fertilizers and chemical substitutes for raw materials which she lacked.

A career in chemistry is an honored one in Germany. Thousands of young men are encouraged to study chemistry, even though the financial returns are small. When the students finish their courses in the universities, they have access to the laboratories of the great chemical plants, where they continue their research work, without compensation other than the use of the facilities and supplies which they receive. The great ambition on the part of all is, to discover some new dye or chemical process, for which they will receive recognition and reward. In this ambition, they are encouraged and aided by the universities and the commercial interests working in common for the advance of science.

How different are conditions in this country! A career in chemistry is comparatively a new one here, hardly recognized, and little appreciated.

Notwithstanding the wide circulation of Slosson's "Creative Chemistry," setting forth, in a graphic manner, the wonders of modern chemical research, those who have attempted to aid and encourage this young American industry have met with rebuff and persecution.

The newspapers of our country should be

the most loyal and ardent champions for the cause of American chemistry. Virtually every industry, which contributes to the maintenance and profit of the press, is directly or indirectly dependent, in some measure, upon chemistry. Trace back, to its beginning, the manufacture of any product, be it bread, building materials or department-store merchandise, and you will find some chemical processes involved in it. The paper, itself, upon which the publications are printed, the inks and the processes of reproducing illustrations are all dependent upon the study of chemistry and its application to modern business. And, now, comes a new process for reclaiming newsprint which will save the publishers thousands of dollars and make them independent of wood-pulp supplies. Old newspapers are deinked and used over again, and the paper is as good as new.

Let us stop for just a moment to consider what a wonderful saving this will mean. With our forests vanishing rapidly and a great deal of our pulp already coming from Canada and Norway, we would, in a few years, have no trees from which to make newsprint in this country.

Chemists have been working on newsprint from other sources, straw, grasses, corn stalks and sugar-cane waste. It takes a great many years to grow trees for paper pulp, but straw, grasses, corn stalks and sugar-cane waste are produced annually and thousands of tons have been wasted.

Reclaiming newsprint is a wonderful process and will help materially in reducing the shortage of raw material for newsprint in this country. This process should bring home to every reader the value of Chemical Research in this country. Chemical Research is developing new products and processes, and is reclaiming waste as never before. And, it is just in its infancy in this country.

Newspapers of today consume enormous quantities of wood-pulp, but, with the reclamation process developed by the Forest Products Laboratory, old newspapers will be reclaimed and used over again, which means a tremendous saving in new pulp.

It takes 2,200,000 tons of newsprint annually, in America, to print our newspapers. If only a part of this can be reclaimed, scientists have again scored a "Big Hit." For this, if for no other reason, the press should devote more attention to chemical problems and rally, at this time, to the support of The Chemical Foundation, which stands for progress and independent chemical research work in America.

The Chemical Foundation, created to encourage the chemical industries of this country, is not incorporated for profit. Its function is, to license American firms to manufacture those products which before the war were never made in this country.

Prior to our entry in the world conflict, Germany had a monopoly, even in this country, on thousands of products and chemical processes, through the misuse of our inadequate patent laws. The Chemical Foundation is breaking down this monopoly and, in its place, is establishing, without fear or favoritism, an open field for all Americans who would enter the chemical industry. The administration of the affairs of The Chemical Foundation have been honest and above board. A thorough investigation proves this fact. It is deserving of the support of every newspaper and publication in this country. If the American press, the American public, and our own Government do not get behind and encourage the development of the chemical industry and protect its growth, then we may expect to be again dependent upon German research and discoveries, as we have been in times past.

If we will do for our children one-half as much as we wish our parents had done for us, the rising generation will have abundant reason for gratitude.

A POLITICAL POWER IF ORGANIZED

There are in round numbers 142,000 physicians, 43,000 dentists and 45,000 drug stores in the United States. In the latter instance, there are probably three druggists to every drug store, making a total of 100,000 druggists. These professions, if properly organized and working cohesively, can be made the greatest factor for good in the country. No legislation inimical to the best interests of the public and the professions named could be placed on the statute books with this organization working coherently. Not a home in the State or Nation that is not reached by some doctor during the course of the year; perhaps not an individual in the Nation who is not met face to face and engaged in personal conversation by one of the three professions in the course of the year.

What a power, if organized, would be the doctors, dentists and druggists of the United States in combating medicinizing socialization schemes, schemes for health centers, clinics, compensation laws, health insurance, Sheppard-Towner Maternity Acts and in heading off Federal interference in medical practice by

such menaces as the regrettable maternity bill and the other fifty-seven varieties of attempts to bring about State Medicine!—(*Ill. Med. Jour.*, Sept.)

[And what a power we and our colleagues, the dentists and pharmacists, would wield if we would, unanimously insist on just tariff legislation which just now is pending in Washington!—Ed.]

Unless a man feels that his work is unique or he has some real facts to present, he should not impose on the patience of editors and his reading public.—Dr. G. J. Warnshuis.

THE AMERICAN RED CROSS ROLL CALL

We are informed that the American Red Cross will start its annual Roll Call on Armistice Day, November 11, and will continue it to Thanksgiving Day, November 30. During this time, it is hoped that all the present members of the American Red Cross will renew their membership and that many new members will be gained. The financial sacrifice involved in the payment of dues is negligible for the individual. The small sum of one dollar is accepted, although larger sums naturally are received gratefully.

The immense amount of good that the American Red Cross has accomplished, is accomplishing now and will accomplish in the future, depends upon the fact that a great many individual membership dues, in the aggregate, amount to large sums which make it possible to accomplish good work. It is truly an instance of "many a mickle make a muckle."

We desire to urge all readers of Clinical Medicine to renew their own personal membership by payment of $1.00 or more in dues and also to see to it that every single member of their families is enrolled in the roster of the American Red Cross.

MATERNITY LAW IS ATTACKED IN COURT

In the early part of September, one of the Chicago daily papers published a correspondence from Washington, D. C., relating that the constitutionality of the Sheppard-Towner maternity law, giving federal aid to mothers, was attacked by the state of Massachusetts in a petition filed in the Supreme Court of the United States asking permission to bring an original suit against Secretary of the Treasury Mellon, the chief of the children's bureau of the Department of Labor, the surgeon general of the public health service and the commissioner of education, who, under the act, constitute the board of maternity and infant hygiene.

The correspondent declares that this is the first attack before the court on the constitutionality of the measure.

According to the report, Massachusetts contended that the act was unconstitutional and void because it would impair and violate her sovereign rights. Congress "unlawfully assumed a power not delegated to it, but reserved to the states by the Constitution," the petition stated, which explained that an appropriation of $1,480,000 had been made for the use of the board during the last fiscal year, and commitment made for the use by the board during the next five years of at least $1,240,000.

In order to participate in the apportionment of the funds, it is pointed out, a state must accept the provisions of the law and submit plans for carrying them out, adding that the states must appropriate amounts equal to those contributed by the federal government.

Appropriations by Congress "of funds to be paid for objects which are not national, but local," the petition designated as "federal aid," which it stated was "believed to be an effective means of inducing states to yield a portion of their sovereign rights for the consideration offered."

Other bills of a similar nature, it stated, were pending or proposed, citing the Sterling-Towner bill to create a department of education.

Calls It Unconstitutional

"Unless checked by this court," the petition asserted, "no limit can be foreseen to the amounts which may be expended for matters of local concern by statutes providing for the establishment of large federal bureaus for the performance of duties entirely beyond any authority conferred upon the United States by the Constitution."

The "burden" of providing the funds necessary for the maternity bureau "and similar legislation," it added, "falls unequally upon the different states," the main source of the federal revenues being internal revenue taxes, which rest heavily on industrial states.

FOR A NATIONAL HEALTH WEEK

There are, at present, numerous campaigns having for their purpose an improvement of the people's health and their instruction as to

how they can maintain good health.

Seemingly, these various movements might be considered as duplications of effort and it might be claimed that our propaganda for the observation of a National Health Week would complicate still further those earlier efforts and would possibly constitute an additional duplication.

This is not the case. Most of the campaign under way have the deliberate purpose to teach people health rules. They inform the laity of the results of medical experience and observation. They aim to establish an improved public health, and a higher standard of well being.

The National Health Week which, we hope, will be observed in the early future, has an allied but still somewhat different purpose. It is aimed deliberately to counteract and to neutralize the mistaken and often false claims and representations of irregular cults, of alleged healers. The purpose is, to show to the public at large what, after all, it owes to the medical and to its allied professions. When we come to think of it, medical men (in all their various specialties going back to the sciences of physiology, anatomy, and so forth) dentists, nurses, pharmacists, chemists, have accomplished a wonderful amount of work and truly marvelous results during centuries of effort. All these devoted endeavors are mostly unknown to the laity or, if known, they are ignored.

We hold that, once the public understands and realizes what it owes to these various professions, it will better appreciate their efforts and will, moreover, be in a better position to benefit from the instruction given through the instrumentality of the various other campaigns. We hope that we have made our point clear and that we have justified the campaign for a National Health Week as we have it in mind.

The power to forget is one of the most valuable and helpful gifts which a man possesses.—S. Weir Mitchell.

READING FOR THE DOCTOR'S WAITING ROOM

A few weeks ago, the publisher of *Brief Stories* sent us a copy of his monthly journal, with a circular announcement, declaring that his was the only fiction magazine in America which is deliberately and carefully compounded for use on the physician's waiting room table. The publisher says, quite truly, that there is no more excellent prescription for diverting patients waiting their turn than to give them something good to read.

The stories in this particular issue, which we have read with some care, and purposely, are not exactly what we would wish to put on our waiting-room table. Not that they are vicious or salacious; still, some of them deal with doings of the underworld and some of the subjects are not particularly edifying or inspiring. The make-up of the magazine is manifestly inexpensive.

It must be admitted and commended that some of the stories are quite amusing, cleverly written and can help to pass away half an hour pleasantly.

However, our point is, that the time spent in the physician's waiting room pending admittance to the consultation room can be made more pleasant and more profitable than through the reading of stories that are written deliberately for the purpose of beguiling a period of inactivity. While there are a great many books and magazines available for the purpose, we have in mind a few things particularly that, it seems to us, are of unusual merit in that direction.

We refer, first of all, to Doctor Frank Crane's "Four Minute Essays" of which, we believe, two series have appeared. There can be no opposition to the assertion that Doctor Crane's writings always are stimulating. Often they are consoling, comforting, encouraging. They provide a spiritual and mental aid for the downcast; they cheer and strengthen those who are discouraged. We can think of nothing more apropos for the physician's waiting-room table than Dr. Frank Crane's "Four Minute Essays."

Another little set of books that stands out in our memory as very excellent for the same purpose is a little collection, "Collier's Classics," which was published by P. F. Collier & Son, and comprises a selection of prize stories that had appeared in *Collier's Weekly*.

The literary standard of *Collier's Weekly* is high. This publication accepts only stories that comply with exacting conditions. We remember having read most of these little prize stories with a great deal of pleasure and, ever since coming into possession of the set, the individual volumes have been passing from one to another of our friends, calling forth expressions of pleasure, commendation and appreciation of benefit received.

A third bit of literature that is useful for our purpose is a selection of O. Henry's short stories. We are ashamed to say that we are not as familiar with O. Henry as we should be. Still, his knowledge of human nature, his sympathetic description, his humor and his wonderfully graphic style place his stories on

a high rank. They can be read easily in one or a few periods of waiting and leave with you something to think about.

Here, then, are a few publications that not only would make a good appearance on the table of the doctor's waiting room, being far superior to the customary ancient, dusty and thumb-leaved magazines, but that provide for the waiting patient mental and spiritual pabulum of more than average excellence.

The doctor's waiting room may be made a place of mental, intellectual and esthetic torture. It can also be transformed into a pleasant nook that lessens the fear many people entertain of a visit to the doctor. The reading matter provided for those who wish to avail themselves of it forms an important item for the solution of the whole problem.

Our body is a well-set clock which keeps good time; but, if it be too much or indiscreetly tampered with, the alarm runs out before the hour.—Bishop Hall.

THE TARIFF BILL, THE DOCTOR AND THE PATIENT

On page 709 of the issue of Clinical Medicine, there is an editorial article in which the story of the tariff bill is outlined in so far as it concerns intimately the physicians and the patients of our country. It is hoped that our readers will study this article carefully. We ask them urgently to communicate with us with regard to any point that is not clear to them and on which they desire further light.

As matters now stand, the best that can be hoped for the protection of the American chemical industry is a reconsideration of the whole question when Congress reconvenes next January.

Physicians should be mindful of the fact that the tariff bill, more particularly the chemical section in so far as it relates to organic synthetic medicinals, interest them and, even more, their patients closely. In ordering those remedies that physicians may consider necessary for the best interests of their patients, the financial factor naturally must receive consideration. If the American chemical industry can be protected and if we can continue to prescribe American-made remedies instead of depending upon imports from Europe, we not only can lessen the cost of sickness to our patients but we also can promote a new American industry which is, in its numerous ramifications and possibilities, one of the most important ones.

It is essential that physicians awaken to the seriousness of the situation which is truly urgent. It would be unjust for us to shrug our shoulders and say, "What can we do about it? Doctors are never listened to." That is not the case at all. Doctors *are* listened to and will be heard respectfully if they only decide to Will it so.

If physicians will get together and act, each one individually; if they will, in addition, act collectively, through the presidents and secretaries of their county, district and state societies; if they will insist, in communications directed to their representatives and senators, in Washington, that the young American chemical industry must be protected in any event—if all these conditions are complied with, the doctors can "put it over."

Come to think of it, if the doctors only would wake up and become conscious of their own interest, if they would take a few minutes off, away from their preoccupation, no matter how important their practices and their studies and their personal affairs may be, if they would, for a change, consider the greater collective good and the ultimate good of all the sick people in their charge, if they would rise up and say, "We will have this or that or the other"—they could get it every time. The medical profession is potentially enormously strong. It has never shown its strength. Yet, we have heard senators commenting upon it but a few weeks ago, that the doctors had written to them more than ever before. They made up their minds that they must pay heed to the doctors' demands.

The time is too early to rest on our oars. We must keep busy; we must continue writing and telegraphing to our representatives and senators and *we simply must protect* those (the manufacturing chemists) on whose ability to maintain their institutions we depend for remedies that we need for the benefit of our patients.

Leading Articles

Indications for Vaccine Therapy in Acute Infections

By G. J. WARNSHUIS, Forman, North Dakota

EDITORIAL COMMENT.—Doctor Warnshuis' "apologia" in support of the right of the general practitioner to take part in scientific discussions, which very often are highly technical, was hardly necessary. No one who reads his carefully prepared article and who follows him through his ingenious and (what is even better) his reasonable ratiocination can hesitate for a moment to accord to Doctor Warnshuis a place among those who are entitled to express an opinion. The doctor's explanation of specific-immunization processes and, no less, his critical and conservative account of his experiences are so lucid and well presented that we must grant to his contribution a high degree of merit.

Surely, the general practitioner is entitled to his opinion and has every right to participate in the discussion. For, in the last instance, a remedial agent, suggested and prepared by a laboratory, can not lay claim to having been "proven" until its value has been established by the bedside. And, it is the general practitioner whose decision constitutes the ultimate approval or disapproval. Let us hear more from Doctor Warnshuis and from others like him.

IT must appear like boldness bordering on presumption for a general practitioner to venture the discussion of a subject on which men are disagreed who have had an opportunity for wide observation and laboratory experimentation. In a profession that demands the keenest of judgment and the most careful study to guard its members alike against the hasty conclusions of radical innovators and the timidity of smug complacency, I find little difficulty in recognizing my own humble position and the little weight my statements will carry.

I am somewhat emboldened, however, to give expression to these observations by the fact that, more than once, has the world found it profitable to look to humble sources for truth. Thus, for example, while all the great minds and learned scholars of the world remained helpless before the ravages of smallpox, an obscure physician in England worked out the remedy. Likewise, it was a young anatomist of no distinction who first pointed out the pathology of appendicitis and a young assistant in a lying-in hospital wore his life away endeavoring to convince the savants of his time of the infectious nature of puerperal fever. To multiply examples, would amount to almost a review of the history of science. I make these references, not for the sake of drawing odious comparisons, but, to call attention to the fact that the truth is as often heard from the mouths of babes as in the pronouncements of the wise.

If further apology is needed, let it suffice to add that, whatever merit these opinions may possess, will depend not on the prestige of position or on the important connections of their author, but simply in the sober force of the evidence produced.

Critic of Bacterial Vaccines Corrected

At the risk of being called an empiricist, a wild enthusiast, I wish to take issue with a strongly directed effort in American medical literature to discredit the use of killed bacterial suspensions in the treatment of acute infections. That the opponents of this therapeutic measure are as often influenced by prejudice as by scientific considerations, is well typified by an editorial that appeared, in 1920, in a leading medical journal. With no judicious moderation, the editor attacks an article, that expresses views in favor of vaccines in acute infections, with all the bitter spleen and sarcasm possible and with no scientific evidence to support his contrary opinions. Nevertheless, he does not spare words to express his scorn for the lack of

such proofs in the article he attacks. He asks the author of the article for practical proof and, yet, rests his own case entirely on theoretical considerations and assertions. He declares that bacterial vaccines are toxic and, yet, he has no evidence whatever to produce that such vaccines are toxic when the ordinary dosage is used. In fact, it has been convincingly shown that the margin of safety is far greater in the case of vaccines than in that of many other drugs universally accepted. In my own experience, I have several times given a dose of vaccine three times larger and even five times larger than that which is ordinarily necessary to obtain results, without any toxic effects manifesting themselves. I would hesitate a great deal before I would undertake the same action with morphine or strychnine or even such a popular drug as aspirin.

In the study of a subject in which I have been deeply interested, I have never been able to discover a single reported case in which bad results could be traced directly to the vaccines. Even in cases of fatal outcome, it can not be shown that the end was hastened by the vaccine or that any change occurred in the patient's condition beyond that which could be attributed to the septicemia itself. Common sense alone should tell us that, if any toxicity were present, it would certainly manifest itself quite decidedly in such exhausted and sensitive cases. But, if such effects have been noted, I am not aware of it. Theoretically, I must agree that such authorities as Zinsser are quite right when they assume that, until the antigenic properties are shown to more than balance the toxic elements, we must be on our guard against, the *possible* depressing effects of the vaccine. This, however, is far more conservative than the blatant cocksureness of the editorial in question. This writer appears to be astonished at the opinion that (to use his own words) "the organism that in the body is but little antigenic becomes, when introduced in vaccine form, actively antigenic." And, yet, there is a good scientific evidence to the effect that this very condition occurs, and it has been explained by no less authorities than Zinsser, Park, and Wassermann. The editor has not penetration enough to perceive that the method of introduction may cause a decided difference in the antigenic effects. Thus, he stands convicted of prejudice, of offering violent assertions as logical deductions, and *also* of utter ignorance of his subject.

Vaccine Does Not Increase Toxemia

Now, the most commonly expressed objection to the use of vaccines in acute infections is, that the injection of vaccine is simply adding more toxic antigen to a circulation already loaded with such. Aside from the clinical evidence, there is good reason to believe that such a position is untenable on theoretical grounds alone. This, I am aware, is wild heresy; but I shall confine myself strictly to facts.

To begin with, we must be on our guard against drawing analogies between the action of bacterial suspensions and that of vegetable and mineral poisons. Whatever untoward effects the former produce, can not be by the direct combining power of their contents. The actual solid matter in a dose of one billion bacteria can be spoken of only in 100ths of milligrams. If we were to go still farther and desiccate this solid matter, the mass of one billion bacteria would become practically imponderable. The combining power of such a dose must be negligible, it is homeopathic Whatever effects it produces on the body economy, must be by the chain of chemical reactions it induces, an enzymatic effect rather than by combination. On the other hand, the action of such compounds as strychnine is in direct proportion to the size of the dose. Unless we assume a similar mass action to take place with bacterial substances, we can not take for granted that the introduction of a minute additional quantity of bacteria, to an organism in which bacterial poisons are already present, will produce an additional toxic effect. It still remains to establish a unit of toxicity and to demonstrate whether such toxicity increases by a geometrical or an arithmetical ratio; in other words, there is no direct evidence that the toxic action is closely proportionate to the size of the dose.

Before any theoretical objections to the use of these minute amounts of bacterial substance can be entertained, we must insist on a reasonable explanation of how these small doses we employ will add to the existing toxemia. If you wish to take a conservative position, you may speak of a possible toxic action, just as any other substance taken into the body, orally or subcutaneously, may have a "possible" toxic action. But you can not say that such toxic effect has been established. In fact, far from an increasing poisonous effect, we often get a sudden reverse action; as, when the intravenous administration allows the vaccine to enter the circulation with great rapidity and diffusion. In such cases, we have the high oxidation process indicated by fever, suddenly interrupted by a chill and subnormal temperature, followed by a slow rise to normal.

These reactions have been designated "colloidal shock" and are comparable to the behavior of colloids with slight changes in the quantity of electrolyte present.

A second element, that must be taken into consideration when discussing the possible toxicity of killed bacterial suspensions, is the fact that this foreign material is not introduced directly into the blood stream by ordinary subcutaneous administration. Is it not likely that, whatever toxins are incorporated in the suspension, may be neutralized by the reaction of the tissues at the site of injection and the bacterial substance completely digested into innocuous soluble compounds before they are absorbed? Indeed, all our laboratory and clinical evidence indicates that this is the very mechanism involved and, whatever benefit follows such administration, may be attributed to the elaboration of antibodies and bacteriolysins by the tissue cells at the site of injection.

The absorption of catgut sutures is a common illustration of this capacity that all tissue cells have for elaborating digestive ferments. In our study of immunity, we have had our attention directed so largely toward the leucocytes, that we are apt to forget that other cells have the same property of producing immunizing bodies. An experiment performed by Wassermann provides an important demonstration of this kind of reaction in fixed tissue cells. Typhoid bacilli were injected into the ear of a rabbit and the ear ligated for several hours. Nine days later, the bactericidal titre of the serum was determined and the ear amputated. An immediate and rapid fall in the antibody content of the blood occurred.

The symptoms of toxemia, that sometimes accompany intravenous inoculation, such a chill, fever and prostration, do not occur with subcutaneous inoculation. A part of this may perhaps be attributed to a difference in the rate of absorption; but it may also be explained by the probable bacteriolysis and detoxication that takes place prior to absorption.

Local Tissue Reaction

If we are correct in assuming that the increased resistance produced by inoculation is due to the effect on the local tissues instead of the cellular elements in the blood, then there is nothing left of the argument that nothing can be gained by injecting an antigen when such an antigen is already present in the blood. The mere presence of an antigen in the blood, even to the extent of a frank bacteremia, is not sufficient to arouse anything but a most feeble reaction in fixed tissue cells. This may be, as Park has suggested, because the bacteria in the blood stream are already sensitized or, more likely, because they do not escape through the capillary walls in sufficient numbers to stimulate the formation of antibodies in tissues remote from the point of invasion. Indeed, it would seem, in order to produce a reaction of any measurable degree, it is necessary to introduce a suspension of several million bacteria. In order that the antigen in the blood should exert the same effect, it must escape into the tissues to a like degree. Aside from the blood spaces in the lymph glands, there must be a very effective barrier to the passage of intact bacteria through the capillary walls and, whenever such diapedesis does take place, it is inevitably followed by abscess formation. We must, therefore, conclude that, whatever resistance is developed in the course of a disease, to the bacteria themselves, is most likely the result of antibody formation by the local tissues and the leucocytes mobilized at the point of invasion as well as by the lymph glands draining the area. Once these bacteria penetrate beyond the lymph glands, they enter the circulating blood and are destroyed there by the soluble lysins entering subsequently from the infected area, or the natural immune bodies in the blood may be sufficient to prevent their multiplying.

Although there is no reason to suppose that the tissues remote from the site of infection are influenced by the bacteria themselves and, hence, do not develop any bacteriolysins, this can not be said about the soluble toxins produced by the bacteria. It is quite probable that the remote tissues are in contact with toxin antigen and do react to it. These toxins may stimulate the production of antitoxin, but they are not adequate to stimulate the formation of bacteriolysins and agglutinins. To say, therefore, that the subcutaneous inoculation of killed bacteria simply means introducing more antigen, is loose talk and does not take into account the fact that a substance present in the blood stream must be in a soluble form and must pass out of the capillary walls before it can react with the cell protoplasm.

I have endeavored, so far, to point out certain principles in connection with the mechanism of immunity by which we are justified in employing subcutaneous inoculations of killed bacteria in acute infections, even when the individual is apparently overwhelmed by the toxins of the infectious agent. I have shown, also, that the main objections to such therapy are not consistent with the most advanced laboratory and clinical evidence. It

remains to be seen how these views are substantiated by the clinical or therapeutic test. The proof of the pudding after all, is in the eating of it.

Confirmatory Literature

A review of the literature of the last three years brings out a great many favorable reports on the effects of specific therapy. Notable success has been achieved by many reliable observers, in influenza, acute gonorrhea, pertussis, erysipelas, bronchial abscess, osteomyelitis, and septicemia. I shall briefly describe some of the most conspicuous of these.

Of all the acute diseases in which vaccines have been used, pertussis has received the most attention. Bacigalupo, of Buenos Aires, in 1919, reported his results in 195 cases treated with vaccines. In spite of the fact that 12 percent of the cases were unchanged by inoculation, he is favorably impressed with its value. Spolverini describes the results in 408 cases, reported by eight clinicians, in which the results are reported as excellent. He obtained very decided improvement in cases he himself treated, when the vaccine was used within the first ten days after the onset. This agrees with the experiences of Dr. Rowland Freeman, of New York, who is convinced of the positive results secured when the vaccine is used early. In mere numbers my own experience is not so convincing. Nevertheless, I have several times seen very critical cases, complicated with bronchopneumonia, end abruptly with crisis within 24 hours after a single injection. Even when the vaccine is given after the disease is well established, the severity of the symptoms is greatly reduced.

In Gonorrhea

The cures obtained in acute gonorrhea are in many cases nothing short of brilliant. L. Frassi, reviewing 116 cases of epididymitis and 239 cases of joint complications, states that the pain and the swelling almost invariably subside after three injections, although the initial dose he uses is very small. A complete cure was usually effected in from six to eight weeks. Pain and suffering in gonorrheal adnexitis are rapidly relieved by vaccines. Thomsen, in an article in *The Lancet* (London) states that he had good success in treating gonorrhea with detoxicated vaccines. His work is corroborated by an article by Dr. De Lees in the *Edinburgh Medical Journal*. Pineo and Baille cured most of their cases of acute rheumatism, sepsis, and ophthalmia with doses of 60 to 72 million bacteria. These are certainly very small doses. It is significant that cases of gleet proved most obstinate in their experience, although the conventional attitude is, to regard the latter as most amenable to vaccines.

My own experience, while limited, bears this out absolutely. I have aborted a number of acute cases, even when complicated with epididymitis, with doses of three hundred million mixed with staphylococci, but seldom got decided benefit in chronic cases. Thomsen and Boas, in comparing 202 unvaccinated cases with 126 vaccinated, found a marked difference in the incidence of complications. Forty-five percent of the former developed complications, while only nineteen percent of the latter did so. Of the nineteen percent, seven of the cases developing complications were found to have been treated with a defective vaccine.

The complications in the vaccinated cases were very mild, with prostatitis in only three percent, while fifty percent of the non-vaccinated complicated cases had prostatitis. If it were possible to confine this comparison to strictly acute cases, it is likely that the findings would have been still more favorable.

G. H. Richard, in a long review of the literature, confirms the efficacy of vaccines in preventing gonorrheal complications. Baril and Creuze cured ninety-five percent of 300 acute and chronic cases including fifty women in twelve to twenty-five days. Lavage was not instituted until the eighth day after the commencement of the treament and after the patient had received four injections of vaccine. It is difficult to accept such a report as simply the uncontrolled impressions of an enthusiast.

In Influenza

In spite of many negative reports and a wide-spread antagonism to the use of vaccines in the forms of pyogenic infections known as influenza, the decided results obtained by a number of reliable clinicians can not be ignored. The very positive benefits, observed after inoculation, in all grades of severity, with the exception of the actually moribund, have convinced me more than anything else of the efficacy of this sort of therapy.

The experience of Kitano is quite typical of what can be done when the proper vaccine and technic are used. He describes thirty-five cases of influenzal pneumonia treated with vaccine and two hundred and seventy cases that did not receive vaccine. Among the former, the mortality was 5.2% while it was 23% in the latter. These results are all the

more remarkable, if we recall that pneumonia is an advanced stage of the disease, when the infection has become well established. All our experience, on he other hand, indicates that, to obtain the best results, we must give the vaccine early. Kitano also states that, in forty-nine other cases treated with vaccines, the course of the disease was greatly shortened. The fact that Kitano treated over 10,000 individuals prophylactically gives a weight of authority to his opinion.

Milne and Rogers report thirty-five cases of influenzal pneumonia treated with small doses of vaccine, with practically 100-percent favorable results, if we exclude three cases that were overwhelmed before vaccine treatment could be started.

My own experience is most illuminating. When the epidemic first made itself felt in this country, there was a great deal of speculation regarding the causative organism. Laying aside the widely advertised deductions of the Christian Scientists, who wished us to accept the disease as a fear psychosis, and the researches of the osteopaths, who discovered they were able to designate the exact vertebra affected, the one positive finding of bacteriologists and pathologists was the invariable presence, to a dominant degree, of hemolytic streptococci and other pyogenic organisms common to the respiratory tract. In view of the harmlessness of the procedure, the good results experienced in other infections with these organisms, the high mortality of the epidemic, I reasoned that, even if inoculation did not produce a specific immunity to the unidentified invader, it would probably increase the general resistance, reduce the incidence of pneumonia and lessen the severity of the attack. Therefore, I practiced prophylactic inoculation as extensively as possible and advocated it strenuously among my colleagues. The results far surpassed my anticipations. Although some persons developed the disease within four days after inoculation, those who did not show symptoms in this period remained immune. In all vaccinated cases, including two pregnant women, the symptoms were very mild. I still hesitated, however, to use the vaccine therapeutically until I encountered an advanced case in the most unfavorable surroundings. I felt that the situation was desperate and the man was doomed. I decided to try a moderate dose of vaccine as the only possible means of saving him. I returned the next day, expecting to find a very sick man. To my surprise, his temperature was normal, the cyanosis was gone, and the pains and aches and respiratory distress had disappeared.

While one must be on his guard against drawing conclusions from a single instance, this experience was at least encouraging. I continued to use the vaccine in every case with pulmonary symptoms, and the results were astounding. As my patients were scattered over an area sixty miles wide, repeated visits were impossible. I inoculated each one, unless they were mild, convalescing cases or unless the patients objected seriously, and I gave definite and precise instructions about the general care. Many of these patients were crowded into little claim shacks, with the poorest kind of facilities for their care. The fact, that there were 22 deaths in the town before I was sent there, is an indication of the virulence of the disease. Yet, it was rare that I had to make a second visit, and the four persons that died were overwhelmed and far advanced cases before I could see them. With the exception of these four, I can not recall a case that did not respond with a rapid amelioration of the symptoms within twenty-four hours.

For the sake of comparison, and in some instances because I had no choice, I treated a great many of the milder cases without vaccine. The duration of these was much longer, the convalesence slower, the tendency to relapse greater. One patient, that did not receive the vaccine, had good care from the onset but ran a severe course and developed a mastoiditis that required drainage. On the other hand, some of the patients I had inoculated disobeyed my instructions, because of the necessity of looking after their live-stock or caring for other members of the family. And, not only did they keep up and about, but they worked outside in cold winter weather without any serious results. Although I saw several cases of post-influenzal bronchitis, dental abscesses, and tonsil infection, I do not recall any of the inoculated cases presenting these complications.

In the Second Epidemic

During the epidemic of 1918, the pressure of work was such that I could not attempt to keep any accurate record of cases. The general impressions I have recorded, however, were sufficient to convince me of the efficacy of specific therapy. When the disease again became prevalent, in the early part of 1920, I made a point of keeping a memorandum of the duration of the disease and the maximum temperature previous to inoculation. I made records of seventy-five cases inoculated and

twenty-five uninoculated. In every case, but one that was inoculated within two days of the onset, the temperature dropped to normal in from twelve to twenty-four hours after injection and remained normal. One case showed a drop with a return of temperature the second day after inoculation. There was considerable cyanosis and pulmonary symptoms developed; but, following the second dose of vaccine, the temperature became normal and the patient made a speedy recovery.

There were two pregnant women in this series and, although the onset was violent in each case, neither aborted. The symptoms rapidly subsided after the injection.

There was a number of bad cases among the uninoculated. In one infant, the symptoms became so threatening after the fourth day, that I was obliged to use a vaccine injection, twenty-four hours after which the temperature became normal. One patient had otitis media and considerable myocardial weakness for several weeks following. Another, a strong, well developed male adult, presented some interesting features. After running a rather protracted course with partial remissions, he developed a semipurulent pleuritic effusion. Following the withdrawal of about 10 mils (Cc.) of this for laboratory examination, he had a severe chill followed by a rapid rise in temperature and marked prostration. Because of this alarming effect, I did not attempt to withdraw any more fluid but gave him vaccine injections. After two of these, his temperature gradually returned to normal and he made a slow convalescence.

The marked contrast between this case and others uninoculated, with the rapid and sure recovery of those inoculated, is too striking to be passed over. Indeed, I greatly fear that I shall excite incredulity more because I have made my case too strong than through the lack of evidence produced. The facts not only can be verified but have been confirmed by the experience of other observers.

Dosage Is Important

The lack of success reported by some may be explained on several grounds—chiefly timidity in dosage. I do not wish to be understood as advocating massive dosage of several billion, as practiced by Delbet. The dose should never be great enough to produce any noticeable effects beyond the local reaction. The ideal dose, in my experience, is that which produces the maximum local reaction short of abscess formation and systemic reaction. I have never seen any abscess formation, and it is barely possible that such a reaction may be explained in many instances by contamination. It is not necessary that the dose should be great enough to produce even the mildest systemic effects, such as backache, ringing in the ears, or muscular weakness, although, in the presence of a virulent, rapidly fulminating infection, it is better to err a little in this respect than to fall short of the maximum immunizing effect through fear of this mild depression.

The average dose I used was from 6 to 800 million organisms in 8 to 12 minims of vehicle. This is nearly double to what is usually employed, but I have so frequently failed to get the sharp improvement with smaller doses, that I have little confidence in them. Not only is the abatement of symptoms less abrupt with smaller doses but, frequently, after a temporary improvement of 24 to 48 hours, the fever begins to rise again and the symptoms of increasing infection appear. While this may be all that is desired in mild cases, and the same result can be obtained over a slightly longer period by repeated injections, still it indicates that the dose was not sufficient to produce the maximum reaction and, in cases that have been deeply invaded and are greatly in danger of being overwhelmed by the absorption of toxins, it is far wiser to bring all the possible resources to bear when this can be done with safety. I speak of this dose merely as a guide. It must be varied according to severity and duration of the disease, the body weight and the age of the patient. It is far below the maximum dose I have given on several occasions and less than some men use regularly. Nevertheless, the question of dosage is just as important as the selection of the proper strains of bacteria for inoculation. The better an understanding one has of the mechanism of immunity, the more competent he will become through experience to adapt the size of his dose to the conditions.

The Negative Phase and Other Problems

Altogether too much anxiety has been wasted over the much talked of but little understood negative phase until it has become a bugaboo. I believe that, in this particular, we are just as safe in being guided by clinical manifestations as by agglutinin reactions and the opsonic index, neither of which have been shown to be reliable. Except in the most fulminating cases or the terminal stages of a severe infection, we need not be deterred by fear of unfavorable reactions, if the dose is not too much in excess of that I have mentioned.

In regard to the latter class, however, a

word of caution is necessary. I include in this class cases that show evidence of such an overwhelming infection that they are invariably fatal. It is a strange anomaly that the ones who expect the most of vaccine therapy are those who seek to discredit it. Very often, their disappointment in the use of vaccines may be attributed to the fact that they wait until all other means have been exhausted and the patient is nearly moribund. Then, as a last desperate measure, they resort to vaccines and, because the vaccine fails to work a miracle, they ignore whatever good reports have been made of the *intelligent* use of them. It must be constantly kept in mind that it usually takes 24 hours before the favorable action of the vaccine becomes manifest. In other words, the elaboration of bacteriolysins at the site of injection takes place rather slowly at first, and several hours are required before they accumulate sufficiently in the circulation to check the progress of the infection. In the meantime, the infection may continue to spread and the symptoms become more severe. If the infection has already become well established previous to inoculation, the invading organisms may have become so numerous before the vaccine has had time to excite the production of antibodies in the tissues in contact with it, that the antibody content of the blood may not become sufficient to overcome the alexins of the bacteria. In such extreme cases, the resistive powers of the patient may not be sufficient to recover from the short negative phase that is said to follow inoculation. While it is not likely that much harm will be done in this respect (because a patient that will not react to the very slight depression produced by the killed suspension is doomed in any event) nevertheless, it is well to guard against too much optimism in such cases.

It may be said that, ordinarily, the size of the dose should be directly proportionate to the severity of the disease, everything else being equal; but, in these very grave cases, it is well to keep in mind the possible consequences of even a mild negative phase that might follow an excessive dose. The proper way to treat these cases is, to get the vaccine in as early as possible in order that the patient may have the benefit of its stimulating action before the infection has become too firmly established and the patient's resistance is overwhelmed. It is a serious error to delay one moment, not only because the bacteria are constantly increasing in numbers at the point of invasion, but because there is a possibility that they may be developing a resistance, themselves, to the bacteriolytic ferments they come in contact with.

The Matter of Specificity

Aside from the matter of dosage and early injection, the species and variety of organisms used may be an important factor in the treatment. Laboratory evidence and certain impressions I have gained from my clinical experience would lead me to believe that, the more closely related organisms in the suspensions are to the invading bacteria, the smaller the dose required and the more positive the results are. This question of specificity can be carried too far. It has been demonstrated long ago, the serums that cause agglutination of certain species of bacteria will also agglutinate similar organisms belonging to that family group, even though there may be considerable variation in their cultural characteristics. The researches of Ferran are also of interest in this connection.

After many years' experimental study, Ferran became convinced that there is a familial relationship between the B. coli and B. tuberculosis and he believes that he can produce a marked increase in the resistance to tuberculosis by inoculations with the colon bacillus. Considerations such as these certainly do not encourage the belief that vaccines, in order to be effective, must not only be of the same species as the organism causing the disease but also must be the same variety of that species. There are reasons to believe that an autogenous vaccine may not even be as active an antigen in many cases as a stock vaccine. Nevertheless, I believe that best results are obtained when we use a suspension containing organisms as nearly as possible like those most commonly found in the disease treated. When one has met with good success in a certain preparation or brand, he should continue with that and not change from one mixture to another if he wishes his results to be uniform and in order to arrive at the most desirable dosage for that particular mixture.

There are many other conditions, such as puerperal septicemia and acute bronchial abscess, in which the use of bacterial inoculations has resulted in rapid improvement and has often prevented what would otherwise have been a fatal outcome. However, if one is so blinded by prejudices that he can not be convinced when the results in a hundred cases have not only been established but explained, it is not likely that a thousand cases will influence him. After seeing case after case, in imminent danger of succumbing to an infec-

tion, suddenly end by crisis within a few hours after inoculation, after having used these suspensions in a great many varieties of infections, including more than three hundred cases and without at any time observing alarming consequences, I am positively convinced that we have in the subcutaneous inoculation of these bacterial suspensions the one effective weapon with which to combat the increasing ravages of these pyogenic organisms. The dread of possible toxic or depressing action is not founded on good laboratory or clinical evidence but arises chiefly from exaggeration of ultrascientific scruples by ultraconservatives. I trust, this statement will not be misrepresented to mean that these bacterial suspensions have no toxic or depressing elements in them, but that I refer to the unimportance of such mild toxicity in doses of less than one billion freshly prepared suspensions. If the evidence I have submitted does not convince the general practitioner, to whom the great majority of these infections come at their onset, I hope it may at least induce more of them to give this form of therapy a fair trial.

The Midwife*

By G. B. MORRIS, M. D., Mount Olive, North Carolina

EDITORIAL COMMENT.—Although Doctor Morris delivered his address three years ago, and discussed conditions pertaining to the midwife problem as they then existed (and still exist) in the state of North Carolina, his remarks are applicable with but slight changes to the rest of the United States. It is true that, in the large cities, there are midwives who are reasonably clean and who have passed through a fairly efficient course of study. Still, many others are just as ignorant and just as careless as are those described by Doctor Morris.

While we must admit some justification for the midwife as an institution on account of the financial inability of many people to employ the services of a physician. It must be insisted upon, nevertheless, that all those who offer their services to parturient women should be carefully trained and should practice not only the art but also the science of midwifery in accordance with the best accepted rules. Above all, the law of "nil nocere" (do no harm) needs to be kept in mind. And that means mainly, to be absolutely clean, to refrain from carrying or introducing infection.

Foreword

WHEN this paper was first delivered, it was, perhaps, more timely than it is now; for, at that time, the midwife nuisance had grown so flagrant that it stank. I do not know to what extent it has since been remedied, as I have been practically out of the obstetric game since the delivery of the paper. However, I have been informed by other general practitioners that there has been an almost negligible reduction in the number of cases attended by midwives. If there has been any, it is due to propaganda and not to legislation; for, the statute [in North Carolina.—Ed.] stands as it did then (in substance) that: All a person has to do to become a midwife is, to register with the State Board of Health.

As all legislation affecting irregular practitioners should be the same in order that it be not class legislation, I do not think the paper entirely untimely even now for current publication.

The cases cited are just composite enough to be misleading as to the identity of the patients and families. Still, every word in either of the citations is the truth as having happened somewhere in my practice—except the use of the name "Eugene" in the latter, which was an unmitigated lie on my part employed for its anticlimactic effect. Incidentally, that effect was lost on all the audiences before which it was employed.

I was told by certain friends that the merits of the paper would carry it before The State Society. If it had merits, they did not carry it there nor anywhere else. I did desire that it get that far, not because I was proud of the darn thing, but because I wanted to further the purpose for which it was written.

There is now, however, more hope of having better laws passed restricting the irregular practitioner, as our state medical society now has a president (Col. J. W. Long, (during World War) M. C. U. S. A.) whose disposition is, to democratize the organization of which he has been made head. Therefore,

*An address delivered before the Fourth District Medical Society of North Carolina and the Wayne and Sampson County Medical Societies, some time in the year 1919.

there is some hope of its being made possible for the "small potato," who practices out in the pines and the sand-hills, to reach The Committee On Medical Legislation, without first kissing the—er feet of the erstwhile "powers that be."

Mount Olive, N. C.,
July 8, 1922.

The Address

Mr. Chairman; Brethren:

Not long ago, I was perusing a "volume of ancient and (almost) forgotten lore," which volume contains a miscellany of useful instruction pertinent to the conduct of human life, when I came upon certain, obstetric data which ran as follows:

"And they journeyed to Bethel,
And there was but a little way to come to Ephrath,
And Rachel travailed, and she had hard labor,
And it came to pass when she was in hard labor, the midwife said unto her, 'Fear not, thou shalt have this son, also.'
And it came to pass, as her soul was in departing (for she died) that she called his name Ben-oni, but his father called him Benjamin. And Rachel died and was buried in the way to Ephrath, which is Bethlehem.
And Jacob set a pillar upon Rachel's grave—that is the pillar of Rachel's grave unto this day."

"Benoni" means, the son of my sorrow—the mother's name for him; "Benjamin," son of my right hand (I who did the whole job)—the father's name for him.

According to the marginal note or, rather, the note between the columns, this incident occurred one thousand, six hundred and thirty-two years before the birth of our Lord. And now, one thousand, nine hundred and nineteen years since the birth of our Lord, making a total of three thousand, five hundred and fifty-one years since this incident is said to have occurred, conditions in this respect among our socalled masses have not materially changed.

All right then, perhaps; for, there is in the history of this epoch but one reference to the activities of the medical men, which is, that Joseph "caused" them to embalm Israel, his father (who, by the way, was that self-same Jacob), and take him back to the place whence he came, for fear, perhaps, that this unsophisticated parent might not rest in peace outside the valley wherein he had so Hebraically "ring-staked" and subsequently hornswoggled Laban, his father-in-law, out of all his cattle.

But, in this day and time, the medical profession is not so closely allied with the undertaking business—presumably; and, that conditions should be the same in this era of science, of new and free thought, of open and above-board discussion of topics which ought always to have been discussed openly and above-board; in this age of abolition of superstition and of prudery—does not seem so nearly "all right."

We claim to be ahead of many other states in the education of those, our masses. But yet, if any small-town or country gentleman of the white-vest and frock-coat persuasion can manage to get his hooks on any tradition or custom, conducive to dry-rot or the stasis of progress, he'll hold to it like grim death, from generation to generation. And particularly does this apply to some ones of a profession, (not all of that profession, by any means) which does not follow the healing art for a livelihood; particularly those of them who sit in the State Capitol, assembled to make boundary lines for us within which to perform what they consider our charlatanism.

No matter if you are a graduate of all the American and all the European Universities, an F. R. S., a F. R. C. S., if you belong to all the domestic and foreign academies and possess all the fellowships in existence: if you attempt to practice in this State without a license, your right to do so is going to be challenged by someone and you are going to be required to go before The State Board of Medical Examiners and qualify in one way or another, according to the power vested in that body by The General Assembly—so long as you call yourself, or are called (what you have, erroneously and possibly sarcastically, been dubbed by the Homeopaths) an Allopath. In other words, if you are not of a school of *irregular* practitioners, The General Assembly makes provision whereby The Board of Medical Examiners can restrain you in practicing without license.

But, call yourself Osteopath, Chiropractor, Faith Doctor, one who removes warts and cancer of the nose by incantation, one who cures the "body disease" by "the laying-on-of-hands"; psychopath, which would be all right, with its limitations, if the operator knew what it meant; one who explains to the patient how he or she cannot die if he or she but have faith in "Science" (explaining in the same breath how the mother of that cult did die having that faith), which, likewise, would be all right, with its limitations, if the operator knew what she practiced, and the patient had the proper intellectual grasp, which is very rarely the case; or be one of those purveyors of puerperal infection on the "larded finger,"—

call yourself or be any one of these things, and The General Assembly does not only NOT empower The Board of Medical Examiners to restrain you in practicing without license, but it takes pains to see that neither it, nor anyone, nor anything else, does restrain or even restrict you—all of which tends to make our people at large, an eminently advanced people, so far as truth is concerned, and us "ambassadors in bonds, (not) to speak as we ought to speak."

After a lengthy conference with a member of the legal profession; after many citations of statutes and of rulings, I am frank to say that I don't yet know whether midwives are licensed to practice in this State or not; that is, technically and consistently. And, before I am done, I think that you will see why I don't know, and you won't know, yourselves. If they are licensed, it is a slap in the face of the medical profession by members of that profession of which The General Assembly is for the most part composed; if they are not, they are certainly practicing surgery (or, at least chirurgy, in the primitive sense of the word,) without a license.

It is "the poor" that you get flung at you when you speak to one of them about legislating against this menace. "The poor are in need of attention and cannot always afford a physician, 'Doc'."

It is in behalf of the poor, that this paper, or harrangue or whatever you choose to call it, has been written, and in behalf of none other than the poor. The merest tyro in obstetrics knows what those infected, sometimes even infested, talons mean to the poor. But, of course, the poor and The General Assembly could never be made to appreciate this; so, a remedy will be suggested later to balance, respectively, the psychic and *pseudo*-psychic equations.

Two Impressive Illustrations

Do you know, Gentlemen, that there are some poor unfortunate miscreants—sometimes, even of the thug type,—that decent, well-bred, refined women seem to fall for? At any rate, it has been my experience, in a few cases, to find women with urbanely manicured fingernails, well-kempt hair, well disciplined expression of countenance, boarding-school grammar and rhetoric on the tips of their tongues, but with dish-water reddened hands and forearms, clad in homespun or gingham frocks, and married to sots who hadn't had a bath in six months, judging from appearances and other evidences. These they might have married with the hope of redeeming them when they were promising youths, and they declined to furnish obituary copy for the semi-weekly locals.

It is never fate which directs man's destiny, unless he so chooses or, rather, so permits. It is more than often fate which directs woman's. It is ever fate which directs married woman's destiny if she remain married.

Even in my limited experience of about ten years' practice, I cannot recall half the nativities that I have attended. I seem not to remember **any** normal case in detail. It seems that only the unpleasant things of life dwell in our memories, particularly those about which we seemed to be in the wrong to others when we were not to blame, though all the evidence was against us.

Man's reputation seems to be made up of various and sundry appearances of evil and diverse false accusations; his real character, of that of which he is truly guilty, but which he always "gets away with."

I remember one case that I am about to cite, because I had words with the goodman of the house, for which I was accused of being drunk, and on account of which I have never yet been paid. I was not drunk; I was only righteously emphatic.

It was, this time, one of those semi- or quasi-well-manicured cases in a squalid hut. I shall not go into details of comparison between patient and environment, as I have already done so in a general way.

There was a midwife who began explaining her blunders, as I went in, just as I do when a consultant walks in upon me. That part was all right—I mean, the explaining part. The girl, however, age eighteen or twenty, primipara, (temperature 103°), had started "wid her back-pains" some thirty-six hours before, and had lain in hard labor some sixteen hours. Still, she had a smile of greeting as I went in. But, as Irvin S. Cobb says, "Oh, well! you know how women are, anyhow".

This "mid-party" went on to explain that she didn't see why it hadn't come "caize de haid was a-pintin' all right".

I asked how she knew "de haid was a-pintin' all right".

She said, she "knowed" that, "dat wuz" her "business, to know".

I insisted upon knowing how she knew, and she repeated her former reply.

She and I carried on this Aunt "Remus" and little boy act for about five minutes, when at last she told me that she "knowed wid" her "hands. Dat wuz how she knowed".

That part wasn't all right, and it was just

as I had maliciously wanted it to be—not all right. How glorious and mighty and right eous it makes us feel to get something on someone else which isn't all right. A certain after-coming head of my neophyte days, which followed a very flattering internal podalic version, but deliberately hung up on me until I could get help, did not at that moment cross my guiltless mind.

"What did you do to your hands before—er—putting them up there?" I asked.

"Fixed um", she answered.

"How?"

"Fixed um right", insolently.

"How?"

"Putt lard on um, dat's how".

"Wash em first?"

"Dey wuzn't dirty".

I found membranes ruptured; R. O. P. which had been doing all the dirty work; descent sufficient to do low forceps.

The next day, I was called to go in haste. Temperature at this visit was 104 degrees; patient delirious.

I told the husband that I wished her placed in the hospital where she could be seen at least twice daily. Money then was not as cheap as it is now (1919). Ward rates, though, were much cheaper. So he said sneeringly, "That will cost ten dollars a week, won't it?"

And that was why it was, with his wife in the condition she was, that I was accused of being drunk on this case.

My reply to him is supplied in the manuscript of this paper (or harrangue, or whatever you choose to call it) by a lengthy paragraph of asterisks. [Let us have a line or so, please, Mr. Printer.—Ed.] *. I have never been invited into that happy family's midst again. The eldest, sternest, yet tenderest of our local professional group saw her through the case, for which I was very thankful. The goodman of that house has not spoken to me since and I've said the same to him. The lady of that house has not spoken to me either, though I've tipped my hat to her a dozen or more times. I was on her side. She knew it; but women, you know, are loyal, even unto living death.

I know that all of you have had experiences similar to mine, possibly not on so limited a scale; probably without so many blunders. I know that all of you, who have practiced obstetrics in the rural districts of Eastern North Carolina, have witnessed scenes which out-Hogarthed Hogarth's "Age of Cruelty"; so, I am going to cite only one more case to bring out another aspect of this problem and then I am done citing cases.

Had, on another occasion, the proverbial small-town or country call to "come at 'onct'," with the usual amount of emphasis on the final "t". Went "at onct".

Air-hunger; pallor; thirst; restlessness, blindness; pulselessness; ballooned-up uterus which seemed to occupy the entire abdominal cavity; very frail victim to start with.

There was a midwife. "What de matter wid her now?" she asked.

"Just bled to death; that's all".

"She hain't bled none,—not no mor'n she oughter".

"Where's that after-birth?"

"Done barried it".

"All there?"

"Yas sur! hit wuz all dare! You knows hit wuz all dare!"

A digital revealed about an eighth of one placenta, whether a portion of "hit dat wuz all dare," or not, partially extruding from the cervix. Its removal was followed by a huge precipitation of clots. The patient stopped breathing for a moment, then started again. The uterus was kneaded for a contraction. One came which seemed momentarily to stimulate her. A thread of pulse seemed to come and go. Very hurriedly and non-aseptically, an approach to a normal-salt solution was stirred together and an imitation hypodermoclysis (for which I had not come prepared) was given her. The pulse, I fancied, grew some stronger. She opened her eyes and faintly asked if the baby was formed all right. I told her that he was. She faintly smiled, again closed her eyes, and this time kept them closed, leaving on earth a little being that, an old crone present said, his mother had wanted to be named—Eugene.

The Legal Status

And, now, to return for a moment to The General Assembly and The State Board of Health:

I have recently ascertained, through purchased advice, (and this because I wanted authoritative advice, and not because I have disregarded the Statutes as furnished me in pamphlet form; though, if the truth were known, I have disregarded them), that there is such a thing as the registration of midwives with the Secretary of The State Board of Health whereby these creatures are permitted to practice obstetrics, legally designated "mid-

wifery", within the confines of our Old North State.

Let us give The State Board of Health credit for this much, even if it be untrue (but I have every reason to believe that it is true) that The State Board of Health does not desire to do this, but, on account of that discrimination exercised by The General Assembly against the regular practitioner in favor of the *irregular* practitioner, The State Board of Health is forced to passively issue these (what might be called) "countenance licenses" to these creatures, for want of better persons to issue them to.

There may now be some doubt as to whether I speak as I ought to speak, or not. But I am of the opinion that I do, and that is all that I care for; for I have no aspirations to be a big man in the State, as I am a lover of what I think is the untactful, unpolitic, even puerile, truth, and am not by nature a "band-wagon rider".

I don't want a nickel's worth of your influence, or of any other man's influence, particularly the influence of that bunch in The General Assembly—that is, for myself. But, I do want your influence and every one's influence to promote and to propagate those myriads of ponderous volumes of truth, unread and unnoticed, which are condensed, crowded, even cramped into "The Short and Simple Annals of the Poor".

I may be wrong in saying that The General Assembly discriminates against the regular practitioner, but I do not believe that, fundamentally, I am wrong. However, I am willing to modify that statement by offering this hypothesis which I am going to prove:

That some body of men in authority; not The State Board of Health; not The State Board of Medical Examiners;—whether The General Assembly or not—discriminates against the regular practitioner, actually, whether technically or not! And this to prove it:

Suppose yourself a graduate of some reputable school, who should locate in this city, ignoring the existence of The State Board of Medical Examiners; stick up your shingle reading—"So and So, M. D." which would be nothing but the truth; insert your card in the local newspaper reading "So and So, M. D.,—Practice Limited to Obstetrics".

A beautiful thought that none of your brethren in this city would have you up before the board to qualify. So interested in your welfare and success would they all be! That is, if you didn't have to answer an indictment, on the morning after you delivered your first baby, if the grand jury happened to be in session.

You would be practicing medicine and surgery without license and it would be nothing but right and proper that you should qualify. You know how to alleviate pain, and do so, in that first case of yours, by the administration of anodynes to spare your patient the wearing tedium of the period of dilatation, by the employment of anesthetics to spare her the terrible throes of the second stage. If circumstances permit, you administer a shot of pituitary extract, thereby hastening the termination of her torture. In other words, you know your business. So, you have to answer an indictment, refund all fees, go before The Board of Medical Examiners, stand a rigid examination on obstetrics as scientifically taught in schools rated "A", by The A. M. A., and on many other branches which will never prove applicable if you limit your practice to obstetrics. All of which is as it should be, for, in the employment of drugs as anodynes and as anesthetics, you are practicing medicine and, in the bisecting of the cord, you are practicing surgery,—not in the primitive but in the most liberal sense of that term.

But, let an old nigger hag come along, who doesn't know the bichloride of mercury from the chloride of sodium; who doesn't do and doesn't know anything to alleviate pain except "bear down honey, an' don't suck yer bref like dat", and be guilty of the same thing legally that you are guilty of,—and, in addition to it, barbarity, though not legally guilty of this; and if her case be not nolle-prosed, she will be fined a misdemeanor fine, not exceeding fifty dollars, after which she can, according to statute, register her name with the Secretary of The State Board of Health, thereby being permitted to specialize in and limit Her practice to obstetrics, without examination on obstetrics, or on any other branch; also to sign birth certificates with "her mark".

"But, this is not sound and balanced argument", might be said. "Why can't this unlicensed M. D. qualify as a midwife?"

Bear with me a moment while I cite to you Supreme Court ruling in State against McKnight, the Osteopath, Vol. 131—Walsher, page 1017:

"It cannot be said that one practices medicine or surgery, when one eschews in his practice the use of drugs, medicine and surgery".

That is what paragraph 2 says, Chief Justice Clark speaking.

Paragraph 3 cites us to Sec. 3124 of The Code. Sec. 3124 of The Code requires—not, allows or permits, but requires—that all appli-

cants to practice medicine and surgery shall be licensed by The North Carolina State Board of Medical Examiners after having passed satisfactory examination on Anatomy, Physiology, Materia Medica, Practice of Medicine, Gynecology, Obstetrics, etc., etc.

So, therefore, you the unlicensed M. D., who, up to the time you qualified, had been practicing medicine and surgery (medicine in that you had employed drugs as anodynes and as anesthetics the employment of which is right and proper according to unquestioned authority on obstetrics, as adjunct and accessory thereto, —and even necessary that obstetrics be obstetrics, and not only natural and unaided labor) the same obstetrics which you would by law be permitted to practice on your midwife's qualification; but, with which qualification alone you would, by law be deprived of the necessary agents pertinent thereto and facilitating it.

You ought to be allowed to practice what you are qualified to practice and conversely this applies to the midwife. You are in a position to make the little fellow's advent smooth for him and, more particularly, for one dearer to him than himself; to welcome him and make him glad to come, not reluctantly as he comes for the midwife. So to speak, to extend to him the right hand of love—though I trust, for your sake, that he return not the courtesy.

And now for the consistency of the law: Gregory's Revisal 1917, (and if there be a later than this, head me off—that is, if it repeal this law.)

Sec. 4453 A.

Paragraph 1. (This is a general law and not applicable to this State, alone.)

To Prevent Blindness At Birth:—It shall be unlawful for any physician to neglect or otherwise fail to instill, or have instilled immediately upon its birth, in the eyes of the newborn babe a suitable quantity of a one-percent solution of nitrate of silver.

Paragraph 2 simply states that it is unlawful for any householder or attendant not to report sore eyes subsequent to birth.

Paragraph 3, Sec. 4453 B. (This is a law specifically applicable to this State.)

"It shall be unlawful for any physician, *or midwife*, practicing midwifery in the State of North Carolina, to neglect or otherwise fail to instill or have instilled, immediately upon its birth, in the eyes of the newborn babe two drops of a solution prescribed or furnished by The North Carolina State Board of Health."

Now, this is good practice and, therefore, cannot be malpractice; and it is as it should be, so far as The State Board of Health is concerned. But, what is it and what can it be but malfeasance so far as The General Assembly is concerned? For, according to Sec. 3124 of "The Code", and to the Chief Justice's ruling (this, in substance) is said: that anyone who does not in his practice eschew the use of medicine and surgery may be said to practice the same without license. And right on top of that is this little silver-nitrate gem, requiring irregular practitioners to employ that in their practices which Sec. 3124 of "The Code" and the Chief Justice's ruling requires them to eschew.

I called my advisor's attention to these little paradoxical jewels and his answer to me was that only the legal mind could comprehend the soundness of such things as these; and then he sweetly smiled.

"But", he added, "if you want to know what I think of that bunch up there"—and then he quoted this law which, according to him, is on our Statute books: "Any firm, corporation, individual, person, or bitch running at large in "such and such" county shall be guilty of misdemeanor". And he asked me what I thought of that. I thought (but did not say) that "only the legal mind—and so forth and so on".

But, seriously, gentlemen, this Statute, according to him, does exist and is on our Statute books; and, though irrelevant here, is illustrative of what can pass the Committee and both those illustrious bodies.

What to Do About It

I said at the beginning that I would suggest a remedy, but I do not know that I am at all glad to have made that statement.

As you, of course, know, the problem is already solved in the large cities by the erection of clinics, and by the fact that students are sent to attend "out-patients" in their homes. These students at least know how to wash their hands and they have been taught to refrain from making unnecessary vaginal examination. That, by the way, would solve the problem in about eighty percent of cases: simply furnish these patients with someone who knows how to wash his or her hands and who has been taught to refrain from making unnecessary vaginal examinations. For the remaining twenty percent, a doctor will have to be called, anyhow.

A further suggestion is, Negroes for Negroes, whites for whites,—or whites for both—but never Negroes for whites.

Also, I suggest that these white women be taught the rules of anti- and a-sepsis by the counties in which they reside; that they know how to read ordinary English intelligently and to write it intelligibly; that, if they practice for a consideration, they be required to furnish

themselves with the necessary agents for sterilization; that they be avouched devoid of all superstition; and that they exhibit to the local registrar, at the presentation of each birth certificate, a certificate of qualification issued by The County Health Department.

By the way. The local registrar in my town tells me that the doctors are doing all the reporting done there and, I dare say, (I know, because I am giving you a consensus of opinion from the other men, and not mine alone) that the doctors are not doing more than forty percent of the obstetrics done in that territory. (Year 1919.)

I questioned two Negro midwives, the other day, about certain certificates they had claimed to possess. Both of them had "em, but dey wuz home locked up in dare trunks" and the "old man" of each midwife was "summars else wid de key in his pocket".

Neither of them knew anything about putting anything in the baby's eyes, at all.

For the Benefit of the Poor

And, now, Gentlemen: to return a moment to that "Short and Simple Annal" business so vehemently referred to in histrionic outburst number one, and then this exhausting, though by no means exhaustive paper, or harrangue, or whatever you choose to call it, will be at an end, for which I feel that you will be very thankful, and know that I shall.

Do you realize it is only by a freak of fortune that the position of those weary wives on their enforced journey from Bethel to Bethlehem, and that of our wives—your wives—is not reversed?

Just assume, for a moment, for the benefit of the most unpleasant impression that it affords, that by some theosophic process, we be returned to earth WITH THOSE POSITIONS REVERSED—and who knows but that we may return just so?

Many men of high estate and high esteem have come, as you all know, from the humblest log-cabin and slum obscurity; possibly, even probably, by the midwife route.

History gives several reincarnations who came that way; Charles Dickens, for example; and, in France, it is said, there came a child, breathless, premature, deformed, and laid aside to die by a drunken midwife; and, Victor Hugo writes of himself, "I was that child."

I do not mean to revolutionize things, Gentlemen; or, rather, I do not plead that things be revolutionized. I do not even hope or trust that, no matter how our hearts are inclined, these laws will ever or ever can be kept, inconsistent as they are.

I make only one earnest plea: That the most sacred of Nature's God-given rites be not celebrated with unwashen hands; that there be not an offering of blood, but a cooing and a crooning as of turtle doves in love; that Benoni, child of sorrow, shall not forever grope in darkness for want of just two little drops of light from off the end of Crédé's wondrous crystal wand—so simple, yet so potent; or, that Benjamin stand wide-eyed, holding his father by the right hand and marvel why he should be tortured by being brought to the grave of a woman that he never knew,—at the head of which *always* has been erected a handsome granite or marble shaft which cost enough to pay several high-priced obstetricians and a *retinue* of nurses—"The pillar of Rachel's grave—unto *this* day."

THE whole nation's welfare demands, indeed, that our public be enlightened in the matter of the relation of chemistry to our national life. Thus, if our commerce and our industries are to survive the terrific competition that must follow the reestablishment of peace, our public must insist that its representatives in Congress preserve that independence in chemical manufacturing which the war has forced upon us in the matter of dyes, of numberless invaluable remedies to cure and relieve suffering; in the matter, too, of hundreds of chemicals, which our industries need for their successful existence.—Professor Julius Stieglitz, Introduction to Slosson: "Creative Chemistry".

Differential Diagnosis of Cephalocele

By F. GROSS, M. D., Kansas City, Kansas

CEPHALOCELE, or hernia cerebri, as it is called by some authors, may be either a meningocele, an encephalocele or a hydrencephalocele, in all of which there is a protrusion of some part of the cranial contents through an opening in the skull. Only congenital malformations and developmental anomalies from a differential diagnostic standpoint will be considered in this paper, as we observe them at the time of birth, such as cephalohematoma, caput succedaneum, dermoid cyst, angioma and cephalohydrocele traumatica.

The most plausible theory of the immediate pathogenesis of cephalocele is, that the primary malformation results in an intrauterine hydrocephalus, and that, as the development of the bones gradually encloses the cranial cavity, a portion of the contents is left outside.

The differential-diagnostic table appended to this paper will give anyone quick, complete and correct information in case of a congenital tumor or swelling on the head.

In addition to the conditions enumerated, might be mentioned Cephalohydrocele Traumatica (meningocele spuria), a tumor or swelling due to injuries of the skull and brain during a forceps delivery, but it hardly can be mistaken for a congenital cephalocele; in fact such an injury, in these days of modern obstetrical teaching, would have to be considered an inexcusable accident.

While the symptoms and signs mentioned are characteristic, or pathognomonic, for each particular tumor, the following case report of a meningocele does prove that the most important diagnostic symptoms may be absent under certain conditions.

Case Report

On March 29, 1922, I was called to the home of Mrs. J. W., on account of pregnancy, as she was not feeling like she did during the other pregnancies. Age 20, III-para, last menses about July 15th, fetal movements about Dec. 1st, expectation of confinement at term about April 21st. Normal pelvis; fetal heart tones one and one-half inch below and to the left of the umbilicus; fetal back in left and small parts in right side of abdomen; *fetal head over the right ramus pubis;* vaginal examination: pelvis empty. *Diagnosis:* L. O. A. with distocia.

On April 21st, at 4 a. m.: patient being in labor for three hours, external examination showing the same as before; fetal heart tones 110; vaginal examination: dilatation nearly complete, membranes intact; fetal head to the right of the median line and above pelvic inlet; fontanels and sutures are not felt. Directions: *right* posture to bring the head away from behind the right ramus pubis, to favor descent of the head etc.; pituitary solution ("Abbott's"), 0.5 mil (Cc.) to increase the rather weak uterine contractions. At 4.30 a. m., head descending into pelvis under strong pains; at 5 a. m., sagittal suture on pelvic floor and in the transverse diameter, large fontanel way over to the right side, small fontanel not felt; some soft substance to the left of the head and suggesting a placenta prævia marginalis (but there was no hemorrhage) or a tumor. At 5:30 a. m.: fetal heart tones 90, artificial rupture of membranes, and advising patient to use all her abdominal efforts to deliver the child; otherwise forceps would be necessary. (I suspected "coiling" of the cord or a beginning "deep transverse arrest", because labor would not progress satisfactory). Another 0.5 mil of pituitary solution ("Abbott") was given and the head delivered at 6 a. m., *the face rotating anteriorly,* but no coiling of the cord. Within one minute, a "sound" like a third-degree tear occurred; the face of the child turned towards the mother's right leg as in a normal L. O. A. To my surprise, I noticed a tumor attached to the child's occiput. Shoulders and trunk were delivered without difficulty and there was no injury to the perineum.

The child's weight was 4740 Gram and, on inspection, did not show anything unusual except the tumor and the peculiar mongolic expression of the face which we find in most cases of cephalocele.

Examination of the tumor showed the following: Shape more *pyriform* than round, about the size of the baby's head and measur-

DIFFERENTIAL DIAGNOSIS

	Location	Size	Shape
MENINGOCELE (Rarest form; protrusion of membranes alone which are distended with cerebro-spinal fluid.)	Mostly in the occipital region.	At first small in size but increases; average that of a tennis ball.	Pyriform, pedunculated, rarely flat.
ENCEPHALOCELE (Is more common than meningocele; protruding sac contains some portion of the brain substance which is connected with the rest of the brain by a constricted pedicle; fluid is mostly present and lies between the membranes and the protruding cerebral substance.)	Mostly in the sinciputal region, especially at the root of the nose and the frontal suture.	Mostly small, does not increase markedly in size.	Irregular, mostly level, broad flattened tumor; rarely pedunculated.
HYDRENCEPHALOCELE (Is the most common of cephalocele; the protruding part of the brain contains a cavity which is filled with cerebrospinal fluid and which communicates with the lateral ventricles through a narrow opening in the pedicle of the tumor.)	Mostly in the occipital region.	Tumor is *large*, pendulous.	Mostly round; often a longitudinal sulcus; pedunculated.
CAPUT SUCCEDANEUM (This tumor forms on the presenting part in prolonged labor and is *always present at birth.*)	Lies over sutures.	*Largest at birth* and disappears in a few hours or days.	Flat.
CEPHALOHEMATOMA (Is a hemorrhage under the periosteum of the skull; is *never present at birth,* but appears a few hours or days thereafter.)	Rarely occupies median line; *limited by sutures* to individual bones.	Grows larger for a time; disappears only after weeks or months.	Never pedunculated.
DERMOID (Rarely seen at birth and develops more often after the second year.	Mostly over supraorbital region, glabella and large fontanel.	From a pea to a small orange.	Hemispherical.
ANGIOMA (Simplex, cavernosum and racemosum; *are at first red spots* which later develop into a growth above the surface of the skin.)	Mostly in frontal or temporal region.	Variable, often very large.	Flat, round, often pedunculated.

ing 16 by 11 cm. in diameter (see Fig. 1). The tumor is *pedunculated* and attached to the lower part of the occipital bone above the foramen magnum; *the surface is smooth,* livid in color, with no hairs covering the tumor, which is *tense-elastic* and *fluctuating,* but *not pulsating.* On crying, the size and tension of the tumor is slightly increased; *translucency is absent;* the tumor seems to be very painful on pressure, but this causes *no cerebral symptoms,* and is *not reducible.*

At this time,[1] five days after the birth of the child, the mother is in excellent condition, the child is living and taking its food, the mongolic expression of the face has disappeared to a great extent. But there seems to be some oozing on the surface of the tumor; also, dark spots are noted on several places; all of which indicates an early rupture of the sack.

[1]The foregoing history was read on April 26th at a staff meeting of the Providence Hospital, the child was presented for demonstration and the case fully discussed before about fifty physicians.

OF CEPHALOCELE

Consistency	Fluctuation	Contents of tumor	Signs of connection with cranial cavity	Translucency
Tense-elastic; surface smooth.	*Distinct.*	Cerebrospinal fluid, which can be withdrawn completely.	Tumor enlarges by forced expiration and during crying; often completely reducible, causing cerebral symptoms; rarely pulsates; often a central cicatrix.	*Complete.*
Surface smooth; mostly soft, flabby; occasionally solid parts can be palpated.	*Mostly absent.*	Fluid and brain; can not be emptied completely by aspiration as the soft brain mass remains.	Enlarges by forced expiration; usually irreducible; there is pulsation.	*Absent.*
More or less hard-elastic; surface is *irregular* or lobulated.	*Mostly present.*	Same as in encephalocele.	Does not increase while crying; pressure rarely causes symptoms; mostly no pulsation; is *irreducible.*	Sometimes partly, but rarely completely translucent.
Soft, boggy.	Absent.	Serum.	*Not reducible; pits on pressure;* movable on skull.	Absent.
Soft-elastic	Present.	Blood.	Not reducible; *no pitting;* never pulsates; fixed to its original location.	Absent.
Tense-elastic.	Seldom.	*Thick, yellowish, often foul-smelling atheromatous mass with hairs.*	Tumor is not movable, but skin of scalp is freely movable over tumor; not compressible; often a tray-like depression in the skull.	Absent.
Soft-elastic.	Fluctuating or pulsating.	Blood.	Only by angioma cavernosum may be a communication with the sinus: in other varieties the skull is normal; tumor is easily compressible.	Absent.

In spite of the absence of the cardinal symptoms (e. g. the tumor *did not pulsate,* was *not translucent* and *not reducible*), I could make no other pre-operative diagnosis than that of a *meningocele* (also called hydromeningocele), which was confirmed by the operation and the laboratory. Dr. H. L. Regier and Dr. T. S. Bourke operated on this infant on April 27th. The operation consisted of an incision made around this tumor, in the skin line. The skin was dissected well back so that it left a pedicle about one-half an inch in diameter. This pedicle was ligated and the skin brought over it and sutured with interrupted sutures. The tumor contained twenty-four ounces of *dark brownish* liquid which did not coagulate, being a mixture of blood and cerebrospinal fluid, and therefore *prevented translucency.* The bleeding into the tumor was undoubtedly traumatic and was caused by pressure during the passage of head and tumor through the parturient canal. The tumor itself (without the contents)

weighed one and one-half pound. The specimen was taken to Dr. Hertzler's Laboratory and he reported that it was a meningocele.

The child did very well the first six days after the operation; but, in spite of the special care given by the nurses, the attending and consulting physicians, it died with symptoms of meningitis, on May 6th. The diagnosis was confirmed by autopsy and the very small opening in the occipital bone (see Fig. 2) explains why the tumor was not pulsating and not reducible.

The prognosis is very unfavorable in all cases of cephalocele, especially in occipital tumors. Treatment is highly unsatisfactory and affords little prospect of success, especially in large tumors.

The Rare Elements and Their Compounds in Modern Therapy*

By ROBERT F. McDONALD, M. D., Brooklyn, New York

WE HAVE to-day a number of reliable drugs at our command for the treatment of specific pathological conditions. Notwithstanding this, the medical profession is ever searching for new remedies. In this paper, I purpose to call attention to a class of remedial agents, a few of which are already well known to the profession; others are rapidly coming to the front, and still others promise much for the future. The experienced physician must admit that, notwithstanding the rapid strides made in recent years in the field of therapy, we are still practically helpless in many conditions of ill health.

In the rare elements, we have remedies of meritorious efficacy from a physiological standpoint, and, in addition, a desirable mental attitude in the patient who has obtained relief through their use, after failure with the old remedies.

In this paper, I shall first treat the subject in a general way, later describing the elements and mentioning the pathological conditions which are influenced by them.

Sources of Rare Elements

In America, we have an enormous supply of natural ores containing different rare elements. At present, the metals obtained from these ores are used in the numerous industries and but little attention is paid to those rare elements, also present in the ores, which are useful for medicinal purposes.

New England is rich in lithium ores. So are California and South Dakota. It is well known that this element may be substituted with advantage for potassium; it has not the depressing effect of the latter. During the late war, when potassium became expensive, lithium iodide or lithium bromide were substituted for potassium salts. The California lithia ore is called lepidolith and contains, in addition, rubidium and cæsium. Decades ago, rubidium and cæsium bromides were used not infrequently in Europe and were found, in some instances, superior to the potassium salts.

If we study the map of North and South America, we find a mountain system extending from Greenland, through New England, continuing south as the Appalachians and ending in Alabama. This mountain range reappears in Central America, lying north of the Orinoco, extending through the eastern part of Brazil to Uruguay. All these mountains contain an axis of original crystalline rocks called granite. Its principal constituents are quartz, feldspar and mica. But rarely does a granite consist of these three substances alone, as small quantities of other minerals are found. Throughout the above-mentioned mountain system, there are two frequent impurities, one, monazite or similar ores, and the other, compounds of titanium and zirconium.

*Read at March (1922) meeting of the Brooklyn Diagnostic Institute.

The monazite group is particularly characteristic of the eastern mountain system, which proves that the original rocks, before crystallization, were a molten mass of average composition and retained a series of impurities—namely, thorium, cerium, yttrium, and other related elements. All these rare elements crystallized out of the molten mass with phosphoric acid, becoming the socalled monazite crystals. Monazite is very resistant and heavy. In the decomposition of granite, the monazite remains undecomposed because of its weight, the amount varying in different granites—some containing more, others less monazite.

The American monazite supplies the world with thorium salts, technically used in the manufacture of Auer and Welsbach lights. These ores are phosphates, containing, in addition to thorium, also cerium, lanthanum, neodymium, præsodymium, erbium and yttrium The manufacturer separates the thorium from the mixture and calls the residue cerium salts, when, as a matter of fact, it may contain only 50 percent of cerium, the remainder being composed of other elements. Some samples are almost white in color, containing a small amount of neodymium; others are pink, having large amounts of neodymium and a much smaller quantity of cerium. Some products contain large amounts of lanthanum; others less so. Other elements are also present in smaller quantities.

Action of These Elements

The compounds of each of these different elements seem to exert well defined physiological actions. Oxalate of cerium, which is a crude by-product of thorium purification, is well known to the medical profession, but has never given full satisfaction because of its impurities. Hence, its most important use, in vomiting of pregnancy, is not always accompanied by successful results. But, with pure preparations I have had gratifying success. The successful results in their therapeutic application depend entirely upon the purity of the preparation used,—it either spells success or failure.

In some instances, the effects of cerium and neodymnium salts may be somewhat similar, since both form insoluble salts with all the oxyfatty acids. In decreased alkalinity of the blood or in the presence of an excess of organic acids, both elements are able to precipitate these acids. There is an equal absorption of both, cerium and neodymium, but the action of these elements is different. That of cerium resembles the action of calcium, while neodymnium acts somewhat similarly to arsenic. Neodymium is a very powerful agent in cases of pyorrhea, while cerium is of little efficacy. On the other hand, in vomiting of pregnancy, cerium is beneficial; while neodymium induces disturbing effects.

The by-products of the monazite industry are inadequately separated, with the result of impure preparations and of non-uniform qualities. This discouraging feature is probably the main reason for its lack of common usage. As an example, I might state that cerium, one of the by-products of the above-mentioned substance, has never failed me in its pure form, while I have never had any success with the ordinary commercial preparation. Even the U. S. P. does not give a satisfactory description of the purification of this and similar substances.

The original rocks of monazite formation also contain titanium and zirconium compounds. Due to recent volcanic disturbances, intrusions have formed. The rocks extend in North America to different parts of Arkansas, and in South America to the Central part of Brazil, separating the Amazon and La Plata Rivers. All the igneous rocks in the latitudinal line with Arkansas Hot Springs are rich in titanium. In the neighboring strata, we find crystals of titanium compounds formed by recrystallization after hot-water extraction from igneous rocks. Evidently, the present Arkansas Hot Springs are the remains of a series of similar springs in earlier years. Chemical analysis of these springs does not show the presence of titanic acid, because it is included in the figures of silicic acid. The most powerful chemical constituents of Arkansas Hot Springs, Virginia Hot Springs and the Warm Springs of the Berkshire Mountains are undoubtedly titanium and perhaps zirconium. Both these elements are strong antagonists of calcium and restrict the accumulation of calcium in the organism. In the aged, they clear up opacities of the lens and influence deforming gout. I have had gratifying success in treating the numerous distressing conditions in the aged, due to atheromatosis, with titanium. I do not believe that it has been used by others to any great extent, but, to one who has employed this element, it gives remarkable results.

The western mountain systems are rich in vanadium and uranium. Vanadium ores are found in large quantities in Colorado, Mexico and Peru; in smaller quantities in many other places. Uranium is found wherever rādium is present. It is an oxidizer and, as mentioned

in a previous paper, I have had success with its use in the treatment of diabetes. It gives off rays similar to those of radium and is obtainable in much larger quantities.

Vanadium has all the good properties of arsenic without most of the latter's dangerous qualities. Almost for a century it was found useful in the treatment of tuberculosis. Its price, its impure condition, and the absence of a desirable compound restricted its use. I am at present making use of the pentoxid.

Boron is an abundant product in certain volcanic districts of California; its supply at present is much greater than the demand for it. Its derivatives are useful as antiseptics and may replace the tar products.

Brazil, in her Central parts, has large quantities of other rare ores. Some of these contain columbium and tantalum—the latter being used for filaments of electric lights. Columbium, or niobium (both are names for the same element), has somewhat similar action in the body as vanadium, but is particularly valuable in diminishing glycosuria in diabetes.

Canada and the adjacent countries have large deposits of pyrites, and in the southern United States there are ores containing copper sulfide. Peru has vanadium sulfides. All the sulfide-containing ores are oxidized in manufacturing processes, with the formation of sulfuric acid as a by-product. During the separation, selenium and tellurium are obtained, which elements are valuable agents in the treatment of carcinoma.

In Pittsburgh and other places, iron ores, during destructive distillation, leave in the chimney soot large amounts of thallium, most of which is wasted. Its only well-known action is as a depilatory.

Fluorin is obtainable in small quantities in certain localities. In Greenland, it is found in combination with aluminum, while in Kentucky, deposits of fluospar—that is, natural calcium-fluoride rock, are abundant. The addition of a small amount of a fluorin compound to pasteurized milk has been found very useful in baby feeding.

Malnutrition in Infants

First dentition is an important event in a baby's life. These teeth contain, in addition to calcium, also silicon and fluorin, which are supplied to the organism in the milk, and experiments have shown that the silicon and fluorin in milk are contained within compounds of a colloidal character. They precipitate as amorphous and insoluble substances when the milk is heated to 60 degrees Centigrade or higher. Not being absorbed because of this change, they are discharged in the feces and not used by the body.

Doses of 1 Gram of fluorin are dangerous to an adult, and over 3 Grams are fatal. In cases of poisoning, the blood becomes non-coagulable. Small doses stimulate the formation of antibodies in the blood and also increase its coagulability. To each 6 ounces of pasteurized milk may be added from 1 to 3 milligrams of a suitable silico-fluorin preparation. Some practitioners have had success with this treatment, particularly during the months of August and September, when the lack of silicon and fluorin in the food of children is the cause of all disturbances now attributed to the lack of vitamins. The fact is that many times, in the feeding of city babies, the addition of a suitable fluoride preparation is of great benefit. Perhaps the many cases of undernourishment in adults, who use canned foods and cold-storage meats, may be improved by the use of this preparation.

In closing, I might state that I have attempted only to bring to your attention a source of new remedial agents some of which I have used with good success; several of my colleagues have employed others to a larger extent also with benefit. They are surely worthy of further scientific investigation.

Facial Prosthetics

By J. JESSER, D. D. S., Chicago, Illinois

EDITORIAL COMMENT.—The restitution of parts of the body that have been destroyed through sickness or through accident has received a tremendous impetus through the exigencies of the war. Doctor Jesser affords us an interesting illustration of the possibilities of this latest branch of surgery. His results are excellent and we are pleased to be able to present them to the readers of CLINICAL MEDICINE.

THE correction of facial deformities has interested men and women, long before the advent of modern surgery and prosthetics. Frequent references to such substitutions are found in the old writings that probably date back three thousand years or more. That people with disfigured faces should seek some means of correction, even at a great personal sacrifice, is not to be wondered at, when one considers the frame of mind of these unfortunate individuals. They are subject to pity and gasps of horror wherever they go, and are avoided in public by their friends. The real-

Without Correction

ization that they are conspicuous, when mingling with people, makes them shy and morose. They become monomaniacs, melancholic and neurasthenic. It is remarkable and very gratifying to note the sudden change that a successful correction of a facial deformity produces upon the patients. Their whole aspect of life seems to become transformed with the stimulus of renewed mental vigor.

The methods of correcting the loss of a nose, ear, jaw, etc., are surgical, mechanical, and a combination of both. Through surgery, many facial defects have been successfully corrected by means of the various "flap" operations which are well known to surgery. Although progress in this work has been very slow, the World War stimulated plastic surgery, and remarkable results have been accomplished.

Gunshot wounds involving large areas of the face have been wonderfully restored, although the process is often a long-drawn out and a painful one. Due credit must be given to the hard working "plastic" surgeons whose devoted efforts and surprising results proved such a great benefit to the horribly distorted and warmaimed faces. Mention also must be made of the great assistance given by the prosthetists and dental experts without whose aid, in the making of supporting mechanical appliances, these results could not have been accomplished. The combination of a "plastic" surgeon and a prothetist is an ideal one for results.

Prosthetics in Civil Life

In civil life, loss of a large part or the whole of a nose, ear, jaw, etc., is rarely due to accidents, such as gunshots, blows, burns, but results most frequently through pathological destruction. Among the most common causes are syphilis, tuberculosis, malignant tumors and ulcers. In view of the pathology of the tissues, good results, both from the physiological and the esthetic standpoint, are much more difficult

With Prosthesis in Place

to attain. It is here that medical treatment of the disease and artificial substitution of the missing part produce the most satisfactory results. An articial nose or ear, to replace the lost one, is most welcomed by the patient; for, it is procured quickly, painlessly and the result is very pleasing to the eye. The marvelous change made in the patient's appearance is such that only one who is aware of the substitution could detect the fact that the features are not all natural. People with artificial nose and ears sit in my office and no one is aware of their deformity. I took a patient to the photographer, which necessitated riding in the street-car for more than one hour, and, on returning

to my office, my patient remarked, "Doctor, did you notice that *not one person stared at me?*" This remark from a very successful and intelligent man sounded very pathetic and disclosed the mental discomfort that some of these unfortunate people labor under. It is very gratifying to me to know that I was of such help to him.

Mechanics of Prostheses

The materials used in the making of artificial noses, and ears vary greatly. Gold, silver, aluminum and rubber (both hard and soft)

Minus One Ear

are used most commonly in my practice. They are also employed by the French prothetists who have probably done the best work in this field. The retention of the appliances offers the greatest difficulty as the cases vary considerably and each one is an individual problem. Spectacles and gold or "special" spring wire are of great assistance in solving the problem of retention. Another difficulty en-

Rear View

countered is in the coloring and tinting which must harmonize with the natural skin. In this, I have been ably assisted by Mr. E. H. Young, an artist of Chicago. The whole procedure is one that calls for careful and skillful work; modelling (to conform with the rest of the face), adjusting, retaining and coloring. When successfully accomplished, a very gratifying result is attained.

Substitutions for nasal and auricular prostheses are indicated:

1.—When quick, painless results are desired by the patient.

2.—When the deficiency is due to a disease that makes surgery a doubtful procedure.

3.—When the physical condition of the patient contraindicates a long series of plastic operations.

4.—When a temporary appliance is desired during a series of plastic operations.

Two Cases

Case 1.—Artificial nose.—The patient lost his nose ten years ago, due to a luetic infection. The entire outer and inner structures of the nose sloughed away, including the turbinates, septum and the walls of the maxillary sinuses. I made an artificial nose for him, in 1920, which he is now wearing. He finds it most comfortable and efficient. It was made of aluminum and then painted to correspond with the color of his face.

The Ear Supplied

Case 2.—Artificial ear.—The left ear was bitten off by a dog, only a small part remaining. The artificial ear was made, covering the small remaining part of the ear and held in place by means of a gold tube extending into the external meatus. The spectacles, also, assist in holding the ear in place. It was made of hard rubber and skillfully painted.

A Non-Surgical Method of Treating Toxic Goiter

By C. F. ROBINSON, M. D., Barre, Vermont

EDITORIAL COMMENT.—The sphere of influence of radium is, it seems to us, being established more and more firmly and even is steadily enlarging. Doctor Robinson's account of the beneficial results from radium treatment in toxic goiter are not only very interesting but are also highly gratifying to those who have all but despaired in procuring aid for their toxic-goiter patients through surgery. It is to be hoped that radiology will advance as fast in the future as it promises to do.

IN REPORTING the results obtained in my first twenty-five cases of toxic goiter, I want first to explain that the patients cited were treated as they came consecutively—they are not picked cases. All had been advised to submit to operative treatment. This was refused on account of timidity, organic heart lesions or because of bad operative risk.

Type 1.—Case 1.—Mrs. R., age 45. Mother of three children. History of intense nervousness for several years. Began losing weight four or five years ago. Now, weighs 72 pounds; ordinary weight, 130. Noticed tumor two years ago. Exophthalmos began a little later and patient began to be more and more nervous. Condition, when seen, was in the last stages of the disease. Nausea, vomiting, and occasional diarrhea. Could not walk across the room. Pulse very rapid and weak—125. Blood pressure, 145. Treatment began in August, 1921, and by January, 1922, patient had gained 35 pounds. Pulse was 90, blood pressure, 130, and she was doing her own work. At this writing, she is the same.

Type 2.—Case 20.—Miss S. Age 23. A simple goiter, unnoticed until two or three years ago, when it began to enlarge. Simultaneously, an intense nervous condition was noticed by her physician. She was sent to a specialist who treated her medically and by electricity for a year. Condition gradually became worse until she could do no work. Rapid heart, insomnia, choking sensations, and intense nervousness were her symptoms when she began radium treatment. Three months later, she began to do light house work and now is capably filling her position as housekeeper.

Type 3.—Case 16.—Mrs. H. Age 55. No palpable goiter, but some exophthalmos. Intense nervousness and insomnia, together with weakness. Pulse rapid and weak. Examination showed no goiter. Fluoroscopic examination showed a definite shadow. Four months after radium treatment, the patient went to New York City for a pleasure trip and is now filling her normal place in the family.

The cases treated, roughly follow the lines of the three quoted cases and the results of the treatment are equal that of any operative treatment that I have ever witnessed, but without the danger, without disability and without postoperative neuroses.

Disadvantages and Precautions

These three disadvantages of the operation might be elaborated upon at this time. Regarding danger, or mortality, Jastram, of Leipzig, reports that his mortality is 4.7% in 234 goiter operations. Death occurred from pneumonia, tetany, peritonitis, embolism or was due to degeneration of the heart. The myodegeneration was observed in old cases of exophthalmic goiter. He warns that the operation should not be chanced in such cases. That death from tetany is always a possibility, is well known by well-read surgeons and all cases showing a persisting thymus should not be operated on, as the status thymico-lymphaticus contraindicates surgical procedures. Radium is especially indicated in this type of case.

Mild cases require no period of disability or hospitalization; many of the patients in my group having worked throughout the period of treatment. More advanced cases require the usual medical treatment in conjunction with radiation. I feel that complete rest should be advised in all cases, regardless of type. However, often, circumstances prohibit correct treatment and the patient goes about his work during the treatment.

Postoperative neuroses (the morbidly excited and excitable nervous system) must be watched over with extreme solicitude. I have in mind a case of a young girl who was operated upon at the age of 17. Four operations were needed in the course of the past seven years to complete the removal of the goiter, and she has been an invalid all this time. She is now 24 years old, her pulse runs at 110, she requires

Case	Sex	Age	Symptoms Before Treatment	Months Treatment Duration	Number of Treatments	Basal Metabolism		Pulse		Tremor		Thyroid Gland		Eye Signs		Remarks
						Before	After	Before	After	Before	After	Before	After	Before	After	
1	F	45	Loss of weight; palpitation; Exophthalmos	2	2	+75	+15	175	85	++	—	Vascular diffuse	Decrease	++	+	Gained 35 lbs.; says she is well
2	F	35	Insomnia; nervous	3	3	+23	+15	115	85	+	—	Small diffuse	Slight decrease	0	0	Able to sleep; not so nervous
3	F	48	Loss of weight; nervous	3	3	+40	+25	120	90	+	—	Small diffuse	Slight decrease	0	0	Gained weight and strength; not nervous
4	M	28	Exophth. nervous	3	2	+41	+ 5	115	78	0	0	Diffuse enlarg.	Slight decrease	+	+	Not as nervous; feels well now
5	F	33	Slight Exophth.	2	2	+21	— 1	110	91	+	0	Diffuse enlarg.	Slight decrease	+	+	Slight Tachycardia
6	F	23	Extreme Neurotic	2	2	+40	+15	120	100	++	0	No enlargem't		0	0	No improvement
7	F	39	Loss of weight; very nervous	3	3	+29	— 1	111	92	++	+	Diffuse enlarg.	Slight decrease	0	0	Returned to work
8	F	36	Extreme Exophth.; weak	3	3	+19	—11	90	90	0	0	Large	Much smaller	++	+	Improved subjectively
9	M	33	Speech defective	3	3	—	—	—	—	—	—	Moderate	Smaller	0	0	Speech improved
10	F	39	Cries easily	3	3	+40	+29	100	90	+	0	Moderate	Smaller	0	0	Improved; gained weight
11	F	61	Difficulty in Swallowing	3	3	—	—	—	—	—	—	Large	Smaller	0	0	Improved
12	F	49	Palpitation; nervous	2	2	+40	+ 9	101	99	++	+	Large	No change	+	+	Improved; works hard
13	F	51	Short of breath	3	3	+21	+21	90	90	+	+	Large	No change	0	0	All symptoms gone
14	M	61	Short of breath	3	3	+24	+ 4	90	81	+	0	Large	No change	+	+	Not as nervous; breathes easier
15	F	21	Sweats easily; nervous	3	3	+41	— 1	100	90	++	+	Moderate	No change	+	+	Much improved
16	F	55	Sweats easily; nervous	3	3	+40	+10	120	100	+	—	No enlargem't	No change	+	+	Doing housework
17	F	40	Loss of weight; nervous	2	2	+71	+30	101	96	+	0	Large	No change	0	0	Gained 16 lbs.
18	F	27	Loss of weight; nervous	3	3	+40	— 2	80	80	+	0	Large	Smaller	+	+	Symptomatic improvem't
19	F	29	Insomnia	2	2	+29	+ 5	90	90	+	0	Large	Smaller	0	0	Feels much better
20	F	23	Tired; nervous	3	3	+59	— 1	90	90	+	0	Large	No change	0	0	Returned to work
21	M	29	Palpitation	2	3	+21	+16	80	80	+	+	Large	No change	0	0	Better
22	F	29	Palpitation; nervous	3	3	+61	— 4	95	85	++	+	Slight	No change	0	0	Better
23	F	36	Nervous	2	3	+51	+ 8	95	90	+	0	Slight	No change	+	+	Improved; wt. increase
24	F	42	Palpitation	3	3	+16	— 6	90	86	+	0	Slight	No change	0	0	O. K.
25	F	40	Exophthalmos; nervous	3	3	+70	+ 6	98	88	++	+	Large Vascular	Smaller	+	+	Symptomatic improvement

large doses of bromides continuously and her daily excursion is from her bed to the window of her room. A life has been ruined. I have seen no such results following the conservative treatment by radiation.

Allisón reports twenty-four cases of exophthalmic goiter (out of a total of twenty-seven cases) cured by radiation. Fischer reviews 490 cases, with the remark that sweating and diarrhea were promptly arrested and that glycosuria was diminished in many cases. Tachycardia disappeared entirely in 25 percent and was materially modified in a further 50 percent. In others, without diminished pulse rate, the patient felt well.

Ménard and Foubert combine radiotherapy with galvanism and think that the number of failures was reduced. They treated 30 cases of pregnant women and no influences on gestation from the radiotherapy could be discovered; the pregnancy did not aggravate the hyperthryoidism. Ludin had an opportunity to apply radiation treatment to 600 nonsurgical cases and writes that the earning capacity was restored, even though some of the symptoms persist.

Method of Radium Treatment

An estimation of the activity of the thyroid gland, based upon the metabolic rate, eye signs, tremor, character of the gland, pulse rate and clinical signs and symptoms, must be made before attempting treatment. Only goiters showing toxic signs should be treated with radium. All others are distinctly surgical cases. The patient is put to bed and the radium is either applied externally over the gland or introduced directly into the tumor substance. I find that my results are as good by the external method as by the needle method and, therefore, I am confining my remarks to the former. The patient stays in the hospital two days and returns to his home. The next treatment is given five weeks later. The third treatment is again given in five or six weeks and six months are allowed to relapse. I have given only once a fourth treatment to a case which resisted previous treatments. Therefore, the patient loses only six days' time, suffers no pain or postoperative neuroses and results are very satisfactory.

An infected nasopharynx should be cleared up simultaneously. I prefer radium and x-ray to the operature procedures because they are painless and safe. Those interested in these methods may find my technic described in the March number of CLINICAL MEDICINE or in the September number of the *Journal of Roentgenology*—this latter being a paper read in St. Louis, Mo., in May, 1922, at the annual meeting of The American Radium Society. These papers dealt with 75 cases, but I now can report upon 150 cases, with results that surpass those of the operation. In our Radium Clinic, we find that a patient who escapes an operation is a friend forever.

Results

The pulse rate is diminished and the tremor, nervous symptoms and insomnia, are less marked in about four weeks after the first treatment. There is a gradual cessation of all these symptoms until six months after the first treatment, when all that is to be effected has been accomplished. The patient gains in weight and a sense of well being is established.

In from 5 to 10 percent of the cases, no appreciable improvement will be noticed. This, however, is not as disagreeable as are death or postoperative neuroses. The basal-metabolism rate is improved in favorable cases. The size of the goiter is noticeably affected in only about 30 percent. The patient is sometimes disappointed in this, thinking that the tumor should be removed. Most patients, however, do not feel this way, being so satisfied in having natural sleep, freedom from other disabling nervous symptoms, etc., and, most of all, because of the gain in weight. The exophthalmos also is seldom benefited, though it is occasionally diminished. This experience is in accord with that in patients treated surgically.

Summary

The results from radiation treatment of toxic goiter, then, are chiefly subjective. The treatment is completed in six months at the longest and, usually, in about three months. Ninety to ninety-five per cent of suitable cases can be benefited.

There is no mortality or morbidity.

Memoirs of the World War

By DR. GUSTAVUS M. BLECH, Chicago, Illinois

(*Continued from September Issue, p. 666*)

AT the outbreak of the war, we had a surgeon-general in Washington for the first time in history, with the peace rank of Major General. His predecessors had attained only the dignity of Brigadier General under our miserly "Tables of Organization." The grade was accorded him by Congress for a service which has glorified American sanitary science. I refer to William Crawford Gorgas. The engineer, General Goethals, has the glory of being the builder of the Panama Canal. But, were General Goethals a man endowed with ten times his ability, he would have failed, like the French engineers, because an invisible foe would have palsied his thousands of busy hands and eventually sent him and his limbs to the grave. Gorgas destroyed the invisible foe and supported the arms in their superhuman task. Gorgas organized an office (which, before the war, was established merely to direct the activities of a paltry few hundred doctors and a few army hospitals) on a scale to meet not only the professional contingencies as they would arise but the great problems which the most terrible of all epidemics (war) was sure to bring out. What of the thousands and thousands of crippled and maimed that were certain soon to return to our shores?

Time was when these unfortunates could have been palmed off with a small pension and allowed to shift for themselves. But, now, the nation had outgrown the kindergarten class. Other nations had begun to "reconstruct" the war victims on a small scale; we would have to do it on a large one. So, Gorgas surrounded himself with the best minds available and from mere desk space in the building of the War Department arose a structure, architectural as well as human, big, imposing, promising; nay, great!

However, the main work was to be done over there. Pershing took with him two doctors, Colonel A. E. Bradley and Lt. Col. Merritte W. Ireland. Bradley was the first chief surgeon, while Colonel Ireland remained as second in charge of medical activities.

Early in 1918, Colonel Ireland succeeded him. He has had his training in the Surgeon General's office in Washington some years ago; had commanded a large base hospital in San Antonio during the Mexican imbroglio. Rated among the younger officers (he is now a little over fifty), he enjoyed a reputation as a level-headed administrator. His value can best be appreciated by the fact that, while chief surgeon of the A. E. F., he was promoted to the grade of major-general and, about six weeks before the armistice, was appointed Surgeon-General of the Army, leaving his mantle on the shoulders of the man, to whom this little book is dedicated—Brigadier-General Walter D. McCaw, a giant in stature and mentality, albeit a modest scientist, whose most popular achievement was, that he made the library of the Surgeon General of the Army the biggest in the world.

Under leadership of these men, involving the periods of mobilization, fighting, and demobilization, worked several to provide for the scientific care of our afflicted comrades. Colonel Sanford H. Wadhams began to secure buildings everywhere. In the office of Tours, in a small room behind a big desk, sat a keen-eyed, silent man—"noisy Jim," they call him affectionately in the Army—Brigadier General James D. Glennan, organizing the huge hospital activities like a strategist moving armies into battle. In another room, we see a still young officer, active like a motor, with great purposiveness, looking after the material problems of the vast medical structures, Colonel James D. Fife; all working with almost uncanny mathematical precision. Later, we shall meet two leaders in the field. I can only mention here two eminent officers, Colonels Charles Lynch and James M. Kennedy, who remained at home to receive the human return flow of temporary helpless men at Newport News, Va., and Hoboken, N. J., respectively, contributing in their quiet, systematic way to the end-results of glorious achievements of reconstruction.

All these men have received high honors, the distinguished-service medal, the highest American reward for unusually efficient, faithful and productive service involving great responsibility. Still, this reward is like mere sounding brass to the appreciation of a grateful nation that is due them!

A Huge Hospital Camp

Let us return to Mars. As one enters the city of wooden and brick shacks arrayed in rows, forming regular streets, one beholds at first nothing more—streets and buildings. A railroad track traverses the entire camp. Over a mile away from headquarters, are warehouses. A planing mill is working day in and

day out preparing the lumber for more shacks, more hospitals. The camp or, rather, hospital city is divided into base hospitals, each an independent unit, with its own commander and his administrative staff, with its corps of physicians, surgeons, laboratory specialists, nurses, and enlisted men. Each base hospital can take care of two thousand patients.

For the convalescent patients, large, double-walled tents are pitched. The inmates have the benefit of an abundant supply of fresh air without exposure to the elements, and here they receive also military attention to refit them for return to the front.

This hospital city is organized almost like any community at home. The commanding officer of the city can be compared to a mayor with a cabinet making municipal laws, controlling all activities affecting the common weal. Each base-hospital commander is comparable to an alderman who looks after the interior economy of his ward, or district. The center commander distributes the work to equalize the output and makes sure that in all units the work is done properly. He is a commander of commanders.

Detailed Work

My assignment was a comparatively insignificant one. I was given supervision of several surgical wards. In one, a young surgeon was doing splendid work with patients suffering from wounds of the chest. There was not a thing to be suggested. He needed no control. In another ward, a young, enthusiastic surgeon, fresh from college, was dressing general wounds. A few suggestions by me were accepted with enthusiasm and, after that, control was only nominal.

In another ward, an elderly practitioner was looking after wounded. He did not belong to the unit and was assigned from headquarters to help out, as the surgical personnel had been depleted for service at the front with operating teams. The man must have been a general practitioner in some country town. He was exceedingly willing but not familiar with modern methods. I noticed that he paid no attention (outside of the wounds) to injured joints, allowing them to become stiff. I began by "breaking loose" the joints. The procedure was very painful, but, after I had explained to the men the benefits to be derived, they gritted their teeth and held out their stiffened elbows and wrists. A young nurse, who saw me at work the first time, nearly fainted. However, in a few days, results became evident and the nurses and the doctors followed my routine. All this work required at the utmost two hours daily. The rest of the time there was little for me to do. Social life was pleasant, each hospital in turn giving dances, minstrel shows, and the like.

When a train with wounded came in, the monotony was broken. Each hospital had to furnish a number of men with litters and blankets.

The soldiers who were assigned as orderlies in the wards were thoroughly disheartened. They were splendid young men, often with superior education, who enlisted with their doctor-friends in a spirit of enthusiasm. But, here in the wards, they had little more to do than to render simple services. They all wanted to get to the front. What wonder, when a train with several hundred wounded arrived, that they worked with joy, with enthusiasm, with pleasure. One could see that these men had not had military drill or training. Nevertheless, the coaches were emptied in a few minutes and the patients carried away to whatever hospital had the largest number of vacant beds. The patients were taken to a receiving shack. The receiving officer glanced at each, ascertained the nature of the trouble and ordered them to different wards, according to the nature of the disease or injury.

The Opportunity Comes

A new nurse had arrived, but she was ill. A day later, she died. The entire camp was hushed. The flag of the camp flew at half mast. All social activities were off. There were rumors of an epidemic at home. I wanted to send a cable. My shoes were nearly worn out, and, as there was little to do in the hospital, I asked and received permission to go to Nevers for the afternoon. A truck took me to town.

My shopping finished, I still had several hours before I could return. I decided to buy a watch. While looking through the show window of a jewelry store, I saw by the reflection in the glass that an officer was standing close to me without moving. I turned abruptly, recognized a colonel of the medical corps and in the officer an old friend—Colonel Ernest L. Ruffner. When I saw him, some years ago, he was a major and on one occasion my inspector-instructor in camp. My eyes must have betrayed my joyous amazement, for the Colonel looked at me with a smile.

Like a flash I recalled a similar scene about five years ago. I was then in command of a new field hospital, and had taken the recruits to camp. I was engaged in the act of teaching the men how to pitch a large hospital tent, when a sergeant whispered to me that a gentleman with a Loyal Legion button in his coat lapel

was behind me watching. Turning around I beheld the inspector-instructor in civilian clothing. We had not expected him for another day. I brought the men to attention and came to salute, but the inspector directed me to go on.

I reminded him of that scene. He asked me where I was stationed. I told him.

"And you, Colonel, where are you?"

"Right here, I am chief surgeon of the Intermediate Section."

He invited me to accompany him to his office. After an encouraging remark, I told him what I had intended to tell Colonel Keller. In fact, I unbusomed myself. It was splendid at Mars. Plenty to eat, plenty good fellowship, plenty recreation, plenty everything, except the one thing. I came to France for work, especially work with an opportunity for initiative. He listened to my tirade without once interrupting me.

"Why do you insist on an evacuation hospital? They are filled now. I have several hospitals, some with over a thousand beds and we need good men."

"Colonel," I replied, "you know well that I am sincere when I say that directly under you I would be glad with any assignment."

He advised me to make no more applications for another assignment (which I had in mind to do) but to return to camp and sit tight.

Somehow I felt that there would be a great change in my career, but I said only a few words of courtesy. A few days later, a telegram arrived directing Colonel Skinner to relieve me from duty and to order me to report to Colonel Ruffner for assignment. I had promised the officers of my hospital to give them a talk on the organization of the medical service at the front. To make sure about several details I rode to Nevers. There Colonel Ruffner informed me that I was to command a hospital at Autun, a town which could be reached in three hours by train. I promised to report for final instructions the next day—Saturday.

I returned to Mars and began to pack. The next noon, I gave my lecture. Immediately after dinner, I left for Nevers, after bidding my new friends farewell. The parting was not hard. I was leaving men I had learned to like and who, I felt sure, became equally interested in me. But, before me, loomed activity, responsibility. Whatever my little kingdom was to be like, I was to sit at the head of the table, perhaps build up an organization of my own in accord with my own ideas.

Life was worth while after all. I recalled Colonel Chiperfield's prophecy. It was realized—though under different circumstances than he could even guess.

Fate was simply kind to me.

An hour later, I was in the office of the Chief. I asked many questions, but I received no answers. Here is what he told me:

"Autun is an interesting little city, almost like Nevers. Your hospital is in a regimental barrack, an old monastery or seminary, or something like that. There are several officers and some enlisted men there awaiting you. I do not know how much equipment there is. There is a telephone. Call me up when you are ready to receive patients. Better take some requisition blanks along."

This official speech amounted to my official dismissal. Socially I remained with the Colonel and his small staff until evening, when I went to a hotel. My train was to leave at 6:00 a.m.

CHAPTER VII.

In Command of a Hospital

Sunday, October 6, 1918.

The concierge of the hotel prepared for me a light breakfast. During the night, I had lain in bed, reading over a number of circulars of instruction pertaining to the administration side of the reception, care and discharge of patients. My stay in Mars proved extremely useful, for there I had picked up a good many "points" relative to the classification of injuries.

No regulations and orders had come to me during the past few months, and I made a mental note to send for a complete file, if none were found at Autun. There was only one thought uppermost in my mind: Shall I succeed? My post was isolated. I could, of course, call Colonel Ruffner's office for assistance, but there was in my mind an instruction to use long-distance telephones with great economy. I had seen warnings to that effect posted in Mars.

At last, the train pulled out. I had to change at Étang, a station but fifteen or twenty minutes' ride from Autun. I arrived at Étang at about 9:30 a. m. There I learned that a train for Autun would leave at noon. I lunched in town.

Autun was reached at 12:20 p. m. An M. P. asked me for my orders. I handed him the little typewritten yellow slip. The soldier clicked his heels together and volunteered to take me to the hospital. We walked through the main business street, the market place, another irregular street, all the time ascending a hill, and I beheld a gate of the

Caserne of the 29th Infantry (French). As I passed the gate, I noticed that the court-yard was very large. On the left, was a small two-story building. On the right and in front of me, a very long building formed an obtuse angle. The building had a basement and three stories throughout its immense length. Not a soul was seen in the yard. We entered the building. The police soldier seemed to know the way. He took me to a large room occupied by the officers. It was empty. We descended the stairs, walked along a porch-like corridor for some distance to the dining room. The soldier pushed open the door. Several officers were at the table. They rose. I asked them to finish their meal and whispered to my escort to get a man and a truck to bring up my baggage.

U. S. Army Base Hospital 208.

The officers invited me to dine with them. I took a cup of coffee. There were four medical officers and one ordnance officer. The ordnance officer and a few men were on detail with the famous Schneider-Creuzot cannon factory, half an hour's ride from Autun, but he lived in town and looked after the mess. One of the medical officers was assigned to the infirmary of the military police school at the other end of the town. He was merely a guest. The remaining three were my family. They gave me all this information in the belief that I was merely on a visit to help them out. I asked them how many men they had. There were thirty-five. Dinner finished, I asked them to go with me through the building. The basement contained a number of rooms filled with blankets, mattresses. There were enormous quantities of foodstuffs (canned), countless boxes of washing soap, medicines, hospital utensils, crutches. There were hundreds of trays, dishes, knives, forks, spoons, etc. The kitchen was of the French type, capable of preparing food for several hundred persons. Outside in the open, were a number of kettles for cooking on open fires.

A few enlisted men were seen in the kitchen. They stood by indifferently, smoking cigarettes while talking to the officers. We went through the wards. About five hundred beds, a few prepared, were counted. The operating room was small, but well fixed up. There were dressing tables and stands in a room on the main floor. I learned that a base hospital had been there, preparing to function, but that it had never been opened. The same applied to a camp hospital. No patients had been received. In a room were two patients—one a member of the detachment, gravely ill with pneumonia, and a soldier from the military police school. When we came back to the dining room, I told the officers that I was their commanding officer, and that I wanted all the men in the office at 6:30 p. m., for a talk.

Assuming Command

It struck me that this announcement produced something like a shock. I put them at their ease, told them we expected patients very soon, that we must begin instructing the men at once, and that I would expect everybody on deck immediately after breakfast.

Then I went over to the little building containing the office and telephones. There was no typewriter, no stationery, no regulations, no blanks which would be needed immediately. Meanwhile, my baggage arrived. A bed, wash stand, mirror, etc., was rigged up for me in a small room in the main building. I sent for my typewriter and books and equipped an old French desk. A few benches, chairs and filing cabinets taken over from the French regimental office, all old and impractical for our purposes, comprised the entire office equipment. Two rooms only were available as offices, separated by a hallway. Each had a telephone. I selected the smaller one for myself and the larger one for the future clerical force.

The men filed in the office at the fixed hour. What I said to them amounted to an admonition to be real soldiers. I impressed on them the need of rigid discipline. I explained the proper manner of addressing officers, of saluting, etc. I advised them to watch the bulletin board and obey all orders with zeal and earnestness. Beginning with 6:00 a. m. tomorrow, each of them was to be up. Roll call would be held at 6:15. There would be calisthenics for ten minutes. Then breakfast. I would inspect the detachment often. At all times, must they present a neat appearance, shaved, clothing brushed, shoes polished. There was no trumpeter available; so, an arrangement was perfected by which a large bell in the court-yard served as a "bugle". The men were dis-

missed. They filed out of the room with heads erect and endeavoring to walk in military fashion.

Selecting the Personnel

Of the three officers, all of whom had the rank of first lieutenant in the medical reserve corps, one was a young man, a recent graduate. As he had had some paper work experience, I appointed him my adjutant, in addition to his duties as a ward surgeon. The two others were elderly men, one a general practitioner, who was given the posts of detachment commander and sanitary officer; the other, who claimed to have done some surgical work at home, was placed in charge of the operating room. I had to send him away some weeks later, as he had a friend by the name of John Barleycorn with whom he was altogether too friendly.

The young medical officer attached to the garrison of the military police was very anxious to be transferred to the hospital (I promised to try for it soon) and agreed to help us out.

Among the enlisted men, I found one who had had some military training and had studied pharmacy. I appointed him first sergeant and placed him in charge of the dispensary. Another soldier had been a medical student, and I placed him in the dressing and operating rooms. A third could slowly operate a typewriter—he was placed in charge of the office. One was something of a cook. Among the others, I discovered one who was a carpenter. The rest were to go into the wards. Two were almost illiterate, and both were given duties as orderlies.

During the evening, I prepared two orders, as follows:

Camp Hospital No. 47.
Autun, Saone et Loire
American Expeditionary Forces

October 6, 1918.

Hospital Order
No. 1

1. In compliance with S. O. * * * Hq. I. S., S. O. S., dated October 5, 1918, the undersigned hereby assumes command.

GUSTAVUS M. BLECH,
Major, M. C., U. S. Army.
Camp Hospital No. 47.
A. E. F.

October 6, 1918.

Hospital Order
No. 2.

1. The following list of calls for this organization will be followed until further notice:

6:00 a. m.	Reveille.
6:15 a. m.	Calisthenics.
6:30 a. m.	Recall.
7:00 a. m.	Mess (breakfast).
8:00 a. m.	Sick call.
8:30 a. m.	Fatigue call.
9:00 a. m.	School.
10:00 a. m.	School.
11:00 a. m.	School.
12:00 m.	Recall.
12:30 p. m.	Mess (dinner).
2:00 p. m.	School or drill.
4:00 p. m.	Recall.
5:00 p. m.	Mess (supper).
10:00 p. m.	Taps.

By order of MAJOR BLECH,
P. J. Fitzgibbons,
1st. Lt., M. C., Adjutant.

Monday, October 7, I called Colonel Ruffner on the phone and reported that, in a few days, I could accept a small number of patients, that at least six specially trained officers were needed and about thirty enlisted men, provided some were qualified as clerks and cooks.

One of the first things I did was to visit the several small French hospitals in the town. I had only one motor-truck, but that was out of commission; so, for the present, I had no transportation at all. One of the hospitals had a motor-ambulance; the others, none. A French soldier owned a car and told me I could use it in an emergency, provided I would furnish the gasoline.

THE general public should realize that in the support of great chemical research laboratories of universities and technical schools it will be sustaining important centers from which the science which improves products, abolishes waste, establishes new industries and preserves life, may reach out helpfully into all the activities of our great nation, that are dependent on the transformation of matter.—Professor Julius Stieglitz, Introduction to Slosson: "Creative Chemistry."

Surgical Seminar

Conducted by Gustavus M. Blech, M. D.

MY ATTEMPTS to present to the readers of CLINICAL MEDICINE some illustrative and instructive surgical problems for solution have met with a response which was very pleasing and gratifying. A number of subscribers wrote to me discussing the case histories that I had presented and offering tentative diagnoses. These letters naturally were more pleasing to me and of greater use to the writers themselves than were those others in which merely a diagnosis was offered, but without discussion, without apparent reason.

The purpose of the Surgical Seminar is, to serve as a postgraduate course in which the students develop their surgical thinking and their surgical reasoning power. Surgery, be it noted, does by no means consist merely in manual and mechanical dexterity joined to an exact knowledge of anatomy, physiology and pathology. There is a great deal more to it. The true surgeon is a biologist. He is a rapid thinker. He is a man prompt to meet emergencies and able to utilize all available resources for the purpose of saving life under the best possible circumstances.

We are none of us quite so perfect that we could forego the opportunity of benefiting from further instruction. I myself have received stimulation and encouragement from many of my correspondents. I desire to make this department of increasingly greater usefulness. The more the readers of CLINICAL MEDICINE participate, the more useful such a discussion will be. In case of need, the Managing Editor has declared his willingness to give me more space. That should stimulate many to take part who, so far, have held aloof.

I note with a good deal of satisfaction the request by Doctor Lenart, of Chicago, in a communication which appeared in the September issue of this journal, for a contribution on the after-care of laparotomized patients. This is, indeed, an interesting topic, particularly so because the very best after care consists in the best preparatory care, whenever preparation is at all possible. I have already expressed myself, in an unsigned editorial a few months since, that we are too quick with the knife in that respect. Textbooks and special monographs furnish ample data, but no one reads them and no one follows them. The entire problem has not yet become bred into the very marrow of our surgical consciousness and conscience. We prate too much about our heroic efforts to overcome infections, peritonitis, shock, hemorrhage and the like, as if surgery were a mere craft depending on certain data, rules, means, such as a cobbler or carpenter might have to learn to be successful in their respective trades; we boast of skill because the nurse instills saline solutions and injects stimulants; we do all that, forgetting the real fact that surgery is a system of philosophy or, correctly speaking, biologic philosophy, which few authors have succeeded in presenting systematically.

I do not know our enthusiastic contributor personally, though we live and work in the same city now. But I can assure him that his wish will be granted in the near future. The task is not an easy one and, in view of the fact that writing, with me, is (to be truthful) a penal job, I must ask for a little time to organize my material for suitable presentation.

The doctor is right when he says that our recent war experience has proved of great value to our profession. As will be seen in this and next month's instalments of my "Memoirs" (p. 746 and following), I have had the honor of commanding the largest military hospital directed by one man in the entire world, as far as my information goes. Nevertheless, I can not say that I have had sufficient experience to alter, to a radical extent, my views which I have held before I entered the Army.

However, the readers will have an opportunity to see for themselves.

Solution of the Third Surgical Problem

Dr. Isaac E. Crack of Hamilton, Ontario, writes:

I have read with much interest your Surgical Seminar and wish to comment on Case 4.

If called to such a case as this, I should look upon it as one of acute intestinal obstruction, in all probability due to intussusception.

The history in this case of recurrent attacks of diarrhea I consider very important. This

illness would have ended as did previous attacks, had not a small portion of the gut become spasmodically contracted owing to local irritation. This contracted part then acted as a fixed point over which a distal portion was drawn by the action of the longitudinal muscle fibers. Hence the intussusception.

The case is one for immediate laparotomy by the most skillful surgeon available.

As noted in these remarks, Dr. Crack is the only contributor who has given a reason for his diagnosis. A number of correspondents have sent in correct answers or solutions; but again contented themselves with merely naming the diagnosis and therapeutic indications.

Two gentlemen sent in a diagnosis of acute pancreatitis. I cannot publish their names because they gave no reason for their solution. It would have given me pleasure to add their solutions, provided they had lived up to our rule which is essentially: always tell us how you arrived at your diagnosis. However, I shall show in the comment why acute pancreatitis is wrong.

Comment

If the reader will again read the problem in an unprejudiced manner, no one can accuse the Editor of having failed to be as plain as the bedside examination permitted. There can be no doubt left as to what the reader himself could have observed and learned had he himself examined the patient.

And, to my mind, there appears only one diagnosis possible. Indeed, among those who have sent in correct solutions, I note one who signs himself a senior in a medical college, showing that the problem *per se* is not difficult. What is not so easy, can apply only to the exact character of the obstruction, which will be discussed later on.

First, I want to take up the question of acute pancreatitis. Those who have seen such a case will recall two factors: first, the attack is sudden, often in the midst of apparent good health; and, second, the attack is intense, so intense in pain as to remind one of biliary colic or perforation. Indeed, the symptoms of acute pancreatitis and peritonitis due to perforation are so similar as to make a differentiation of one from the other impossible.

Finally, in twenty-four hours, one would find either one of the two following situations: the patient is either showing decided advance towards a fatal issue or else the abdomen, while still tender, would show a tumor-like mass in the epigastrium; while, below that, the abdomen would be flat, especially if the patient has passed flatus or fecal matter.

Now, with reference to the problem. I have faithfully recorded what I saw and I am going to be frank. A few minutes after my arrival at the bedside, I made one diagnosis, and one only: intestinal obstruction, and I at once rang the alarm bell. I could not then tell what was the real cause behind the trouble. The fact, that the patient had had attacks of diarrhea, helped me a bit; the fact that, after the first attack of vomiting, there was a symptomatic relief for a few hours, only confirmed the fact that there was an intestinal obstruction. At that time, the urinary examination was not made; but, there was one thing done. I declined a consultation proposed by a member of the family, at the house, but agreed to have a surgeon see the patient at the hospital, provided I was authorized to direct the hospital authorities to prepare for abdominal section.

I was asked to postpone all that until the surgeon could see the patient at the house; but I gave them my ultimatum. Consultation at the hospital or I withdraw. My ultimatum made no impression, the parents were too skeptical. I withdrew.

I learned that, about an hour after I had left, a physician arrived at the house, who at once began the administration of enemas, in the hope of relieving the obstruction. His efforts received the moral support of the knife-shy parents. A feeble protest by a neighbor was left unheeded.

Towards evening, the patient's vomitus was fecal in odor. Consultation was then held and the surgeon told the family that he was too late for human help. He refused to operate. The patient died during the night.

The surgeon in the case insisted on a partial necropsy, which was refused on religious principles.

Discussion of Case

Now, I have purposely selected this particular case and have ignored a fairly large number of more fortunate cases in which I succeeded in saving life, because of a timely operation; for the following reasons:

1.—The diagnosis of intestinal obstruction *per se* presents no difficulties.

2.—This particular case shows what will happen if one resort to dilly-dallying measures.

3.—To show and endorse the attitude of the last surgeon who was called in, because he realized that, once fecal vomiting had set in, the beginning of the end had arrived and human help was too late; and, further, because he was not a party to bringing discredit to the

art of surgery merely to calm the uneasy conscience of the parents.

Now, though there was no opportunity afforded us to verify the actual pathologic condition affecting the intestinal tract, we are not compelled to say that, without an abdominal section, either during life or post mortem, we are absolutely unable to make more than a general diagnosis.

—

That differences of opinion will exist, there can be no doubt. Just as I was ready to send this manuscript to the editorial office, the mail brings me an interesting letter from Dr. Geo. Acheson, of Kingston, N. B., which I will print below. His letter is interesting and should be read by all. At this time, I will only say that Dr. Acheson suspects the problem under discussion to be volvulus.

The first thing, it seems to me, is to divide every case of intestinal obstruction into one of two main groups, namely whether the obstruction is mechanic or paralytic (atonic) in character.

I think, there is no need discussing paralytic ileus in connection with the case under consideration, and, basing on the general phenomena as they presented themselves, we can say with certainty that this is a case of mechanic ileus.

From a purely pathologic point of view, we may briefly recall the following principal causes of intestinal obstruction:

1.—Tumors, malignant and benign, of the intestine itself or in the abdomen, obstructing the intestinal lumen.

2.—Foreign bodies, e.g. gall-stones, fecal stones or even hardened feces, a clump of intestinal worms, etc., obstructing the intestinal lumen.

3.—Congenital or acquired stricture of the intestine (ulcerative processes).

4.—Flexion or angulation of the intestine caused by adhesions or strangulation of a loop by a hernial mouth.

5.—Invagination (intussusception) or torsion (volvulus).

This classification need not be remembered in detail. Whenever I meet a case of intestinal obstruction that is not following a laparotomy (and, that is a story that can not be told here), the first thing that flashes through my mind is not under what particular pathologic group the disease has to be labeled, though this is seriously considered a little later, but whether we have to deal with a very acute, an acute or a chronic condition, a classification which is empirical rather than scientific, but of vital importance to me, because in the course of experience I have come to formulate this law:

A case of acute and very acute intestinal obstruction that has not ceased or yielded to mechanical measures within twelve hours is prognostically hopeless unless operation is performed promptly. And, never mind the refinements of diagnosis.

If anyone should feel like taking me to task for having proved myself an empiric, he is welcome to it. But, when called to see a sick human being, I am a physician or surgeon trying to save that human life, first and foremost, and a scientist only secondarily. As we have now the repose to philosophize, having done our duty by warning the parties concerned that my *suprema lex* is not subject to appeal, we become scientists again.

When we recall the more or less stormy symptoms of our patient's attack, we can at once exclude from consideration tumors, strictures and foreign bodies as the cause of the obstruction; neither the previous history nor the mode of onset justifying such grouping. We see already that the *status praesens* helps us to a certain extent in arriving at something like a scientific diagnosis.

What actually remains to be considered is, some form of strangulation, intussusception, and volvulus.

Strangulation would be caused by bands or by a hernia. Nothing in the clinical history justifies an assumption that there has existed an inflammatory process likely to result in bands or adhesions. That a search has been made for hernia, can be assumed, even if I did not specifically state that none has been found. As regards the socalled intraabdominal hernias, especially the incarceration in the foramen of Winslow, these are so rare and so difficult to diagnose as to be of little practical value.

Volvulus may involve the ileum or colon, the latter running a milder course. The intensity of the phenomena depends on the degree of the twist and the extent of the loop of the bowel involved. Accordingly, one may have all degrees of obstruction, namely from that of simple obstruction of the apparently chronic type to the strangulation with phenomena of peritonitis. One of the most important things to remember is, that in the severe types peristalsis of the entire bowel is suspended—the result of pressure on the nerves at the site of constriction.

Intussusception presents the clinical picture of obstruction and strangulation. While the majority of the cases affect infants (which is easily accounted for through the physiologic cecum mobile) and young people, about twenty percent affect adults, and, in my experience at least, is favored by intestinal inflammation. In

only one out of eight operated cases, did I see a Meckel's diverticulum.

Characteristic for invagination of the bowel, especially in children, is a clinical picture of acute enteritis; that is to say, tenesmus, and slight passages of fecal matter mixed with blood and mucus.

In adults, a tumor which is little movable and changeable in consistency, as well as an exudate in the abdominal cavity are virtually final proofs of invagination.

Vomiting in this form of intestinal obstruction is a warning that the beginning of the end approaches. A good physician will not wait for it. He will have had enough with one attack of vomiting.

It goes without saying that, while I have no absolute and irrefutable proof, except the clinical picture as presented in the problem, I am compelled to accept intussusception as the correct diagnosis.

It affords me great pleasure to publish Doctor Acheson's letter.

"I have to thank you for your comments on my attempted solutions of your surgical problems 1 and 2; but I do not understand your objection to the term "uterine colic". Surely, you recognize the existence of "colicky dysmenorrhea" as a symptom, no matter what may be the cause. The term "colic", as I understand it, means the irregular, spasmodic, painful contraction of the muscular fibers in the wall of a hollow viscus, due to the mechanical irritation of some body or substance which the organ is endeavoring to expel or propel, or to the chemical irritation of some toxin. Now, does not this condition frequently arise in connection with the uterus, apart from pregnancy or membranous dysmenorrhea? Are such 'cramps' not actual rather than merely theoretical?

"With regard to your remarks about 'nervous dyspepsia' I am in full accord. Many years ago, I strongly suspected and expressed the opinion that probably all socalled 'functional' diseases were dependent on some organic lesion, macroscopic or microscopic, which, if carefully sought for, might be found, and the treatment of which, if possible, would result in cure of the functional disease. At the same time, I am sure that the nervous, mental, or psychic make-up of the patient frequently magnifies to a very considerable extent some slight organic lesion, which of itself would be negligible, and which in another individual, shall we say 'of stronger nerves'? would produce no disagreeable symptoms. Might not nervous hepatic colic be comparable to an attack of migraine, both of them dependent on toxins which irritate the nerve centers involved?

"Referring to problem No. 3, as described in the August issue, I have very little to say, except that it is evidently a case of acute intestinal obstruction, calling for an immediate laparotomy, which would, of course, clear up the diagnosis and disclose the cause of the trouble, which in this case I would suspect to be volvulus.

"Now as to Doctor Lightstone's case, Problem No. 4.—It does not seem to me that sufficient data have been furnished on which to base a diagnosis. Apparently the only thing abnormal is slight tenderness in the back in the right kidney region, and a dragging pain in the left testicle. There is the man's statement of strenuous exertion during the day, in which the abdominal muscles were largely involved, by which he thought he had ruptured himself, but of which there was no sign.

"I would be inclined to refer this case for further observation before committing myself to any diagnosis.

"I am very much interested in these problems and the discussions to which they give rise; and I hope some member of the Clinic staff will start a similar Seminar in Internal Medicine. I feel sure it would meet with a hearty response."

Comment

I shall discuss the question of uterine colic in the near future. In the main, Doctor Acheson and I are agreed, as a good deal depends on the proper interpretation of the customary terminology.

Both, Doctor Acheson and I, are too busy with really important matters to lock horns over something and to give cynics a chance to say of us: *parva leves capiunt animas.*

As for the case problem, I have published it because, evidently, Doctor Acheson does not care to discuss it. I, too, was first impressed with the impossibiliy of having anything more or less definite to lean on. Nevertheless, we must place ourselves in the author's position and endeavor to reason diagnostically. So far, only one more letter has come in on this problem. I shall discuss it in extenso in the next issue.

I can only express my satisfaction with the suggestion to have a Seminar of Internal Medicine. If any one has the ability to conduct one, it is my colleague on the staff, Doctor Candler. *Mirabile dictu,* we live only a few

minutes' walk from each other; I run in to see Doctor Achard two or three times a month; and, yet, I have never met my editorial colleague whose learning and diagnostic acumen I have often admired. So, the best I could do was, to send a note through the Managing Editor conveying the question. As for the result—we shall see what we shall see, as Dr. Abbott used to say.

The following letter is of interest. It is a portion of a communication received from Dr. J. C. Cutler, of Newport News, Va., who writes: "I was called to see a young colored woman who, while visiting a friend, fell about fourteen to sixteen feet from a back porch, striking on head and shoulders. Found patient lying on her back in bed where she had been carried by neighbors. I saw her within fifteen minutes of the time of accident. Pulse, temperature and respiration normal. Patient suffering intense pain in back, and said at once, "I can't move or feel my legs or feet." Examination revealed a backward dislocation of the eleventh dorsal vertebra with probable fracture of anterior portion of body, with complete anesthesia and loss of motion below this area, with hyperesthesia at upper portion of anesthesia. I placed patient on face, secured shoulders to head of bed by rolled sheets, had two strong men make traction on legs and did the chiropractor's stunt of jumping on the dislocated spine. Never have I experienced a more decided "pop" in reducing any dislocated joint. The patient mentioned this as soon as she recovered from the shock of the impact. In less than five minutes she was free from pain and talked freely. Twelve hours later, she was catheterized and taken home to her mother. Prognosis very unfavorable."

As Doctor Cutler has already given us the prognosis, little more can be said in comment. I think it is mighty little we have to learn from the mushroom schools of would be medicine, such as the chiropractic "school," which vegetate alongside of scientific medicine. I am, in all matters affecting creeds, perhaps one of the most liberal men on earth, because I understand somewhat of human emotion, the influence of birth, education and so on; and, accordingly, I feel a good deal like the first Frederick who expressed himself to the effect that, in his country, every citizen may find salvation after his own fashion.

It is different with medicine. Obscurantism exists only because our civilization has not progressed sufficiently to establish laws safeguarding the public, privileges being granted to certain mental weaklings, who are compelled to seek the least lines of resistance to eke out an existence. But, all the legislation in the world can not transform a soothsayer into an astronomer and a chiropractor into a surgeon. Accordingly, I feel that the rational methods of modern surgery are preferable to the "tricks" of charlatans.

This month's Seminar has assumed more space than I am allotted and I am unable, therefore, to present new problems.

THOSE who compare the age on which their lot has fallen with a golden age which exists only in their imagination, may talk of degeneracy and decay. But, no man who is correctly informed as to the past will be disposed to take a morose or desponding view of the present.

—*Macaulay.*

The General Practitioner

Talks About Professional and Personal Problems

Conducted by WM. RITTENHOUSE, M. D.

Medicine and Exact Science

Two Questions:—J. C. W., Iowa, asks: What answer should I make to a Christian Scientist who tells me that medicine is not an exact science?

Answer: People who make this assertion are given to loose thinking and confusion of ideas. Medical Science has just as much reason to call itself exact as any other branch of science. To call any department of human knowledge a science, does not mean that it is free from uncertainties or that all that can be discovered in that particular field has already been disclosed.

Before such a subject can be discussed intelligently or profitably, we must first clear the atmosphere by defining the meaning of the terms we use. Most human disagreements are due to the two disputants attaching different meanings to the terms employed.

What is a Science?

It is merely the collection and orderly arrangement of all the facts that have been discovered in a particular field.

The "Standard Dictionary" defines it as: "Knowledge gained and verified by exact observation and correct thinking, especially as methodically formulated and arranged in a rational system."

For example, men have discovered an extensive array of facts relating to the plant world. That array of facts and the conclusions that we draw from them constitute the science of Botany. That does not mean that all the facts of Botany have been discovered; we know they have not. It does not mean that all of our knowledge of plants is exact; we know that some of it is not. But, that does not invalidate the claim of Botany to be an exact science.

The very essence of science, or of the scientific method, is *to distinguish carefully between the things that are certainly and absolutely true and those which still are in doubt and undergoing investigation.* No other method so promotes the advance of human knowledge (which is the foundation of human welfare) as this careful and fearless separation of truth from error. We should so love the truth that we would be willing to give up our most cherished beliefs if they were proven to be founded on error.

We see all around us continual violations of this simple principle. People with loose habits of thinking are continually setting up theories in place of facts, and then they imagine they are scientific and that the system they have set up is a science.

Take, for example, the various cults of irregular medicine that are putting themselves in opposition to regular medicine and misleading the public by theories in place of facts. Every one of these cults is based upon some theory; and it is a well-known but deplorable fact that the great majority of people are just as liable to believe a theory as a fact. A theory may be useful as a working basis for discovering the truth by observation and experience; but, to believe a theory because it looks plausible, is one of the greatest hindrances to human progress, because it leads into bypaths of error.

The people who make the assertion which has perplexed our inquiring friend do not say exactly what they mean. When they say that medicine is not an exact science, they really mean that diagnosis and therapeutics are not exact, especially the latter. But, this is nothing to the detriment of medicine as a science. In fact, medicine is a combination of sciences: anatomy, physiology, chemistry, bacteriology and others. Would any one accuse these sciences of not being exact? Could any science be more exact, for example, than chemistry?

Irregulars not only fail to distinguish between theories and facts, but also between theories and principles. One of them once said to me: "The practice of the regular school is not founded on a principle as our practice is."

I replied: "You are confusing the meaning of words. In the first place, the regular profession is not a 'school'. There are no 'schools'

in science. You say, your practice is based upon a principle. You mean, it is based upon a theory. You say, the regular practice of medicine is not based upon a principle; but, if you will read our code of ethics you will find there the statement that the only safe method of establishing truth is by observation and experiment. Could any principle be more clear and definite than that?"

Any man who will make those two his guide will be following the scientific method even though he may come to a different conclusion from that held by the majority.

If a man believes that Hahnemann's teachings were correct, I have no quarrel with him, provided he is open-minded and willing to consider the results of observation and experience. The man who really hinders the progress of knowledge is the one who thinks that, what he has learned, is the only truth and that it cannot be modified by the discovery of additional, new, facts.

So, I would suggest to J. C. W. that he put emphasis upon the fact that it is only diagnosis and therapeutics that are less exact than the other branches of medicine, and that these two are really arts rather than sciences; in other words, they are the application of the knowledge collected under the head of medical science.

What the world needs most is more facts and less theory—more principles and less dogmatic assertion of unproved or alleged facts.

Antivaccination Again

B. W., Oklahoma, writes: I am perplexed as to what to believe regarding vaccination. I have seen a few cases of infection that seemed to support the claims of the antivaccinationists, that vaccination does not protect against smallpox, that it is dangerous and must necessarily be so, because it consists in putting into the human body pus from sores on animals or on other human bodies. Where can I get the information necessary to convince myself which side is right?

Answer: Our correspondent need not look far for the information which he seeks. The evidence that vaccination does prevent smallpox is so abundant and convincing as to be fairly overwhelming. It can be obtained from any Health Department or from any of the civilized governments of the world. The Army and Navy Departments, at Washington, are in a position to furnish information on this and kindred subjects at all times. A letter of inquiry to the Surgeon General of the Army, at Washington, has never failed to bring me statistical information relating to the prevention of disease.

But, while our friend is evidently open-minded (his inquiry shows that), he will find that the regular "anti"—the hardboiled, dyed-in-the-wool opposer of almost everything that is scientific, is anything but openminded. I have never known an instance of a real opponent of vaccination being convinced by evidence. If the evidence does not suit them they reject it. Simple process! The idea, that incontrovertible evidence deserves consideration, does not concern them. If you quote to them the statistics that show that, where vaccination has been thorough and universal, smallpox dies out, they assert that the statistics are false—cooked up for the occasion. Not that they have any ground for such an assertion; it is simply the most convenient way of disposing of facts that are against them. What could be easier? If a fact does not suit you, ignore it.

The claim put forth that vaccination does not protect against smallpox is so weak that it scarcely needs to be refuted. Compare those countries where vaccination is universal or nearly so with those where it is neglected. The evidence is always conclusive.

Before the discovery of vaccination, the various countries of the world were periodically swept by epidemics of smallpox that raged until they died out for want of material; that is, until the populations were either dead or immune. Then there would be a rest until a new generation grew up to furnish fuel for another epidemic, and the process was repeated. At the present day, such general epidemics are unknown.

Occasionally, we see cases where some city or community has neglected general vaccination for a time until at last an epidemic breaks out. A few years ago, the City of Niagara Falls, N. Y., had such an experience. The presence of a considerable foreign population, and the indifference of a portion of the American residents due to the teaching of the "antis," had resulted in a considerable part of the people being unprotected. When finally an epidemic started, the result could easily be foretold. Loss of life, quarantine, stagnation of business with heavy financial loss, was the price paid for folly. They formed an argument that was appreciated when too late.

In our large cities, it is always among the poor and ignorant that vaccination is opposed and smallpox gains a foothold now and then.

The fact that, when an epidemic breaks out, it is always by vaccination that it is controlled and stamped out, ought to be convinc-

ing; but, as I said before, the people who oppose vaccination are not the kind who are convinced by proof.

In smallpox hospitals, the doctors, nurses and other attendants are living proofs of the efficacy of vaccination, for, the great majority of them have had no other protection.

My first experience with smallpox and vaccination was in 1866. My brother caught the disease from a concealed case. We were a family of ten. As soon as the diagnosis was made, or even suspected, we were all vaccinated, and no other member of the family developed the disease. Several other families in the community pursued the same course, with the same result. But, a few families were opposed to vaccination or believed that, if they were not afraid of the disease, they would not take it. In those families, every person took smallpox who had not had it previously. In one family, eight persons were down at the same time; in another six; in another, five. Many deaths occurred and much disfigurement resulted, to say nothing of the strain on the well to take care of the sick. I quote this experience because it is typical and is a good illustration of what always happens when vaccination is neglected; also, it shows clearly the difference between the present day and half a century ago. Where do we see at the present day half a dozen members of a family down with smallpox at the same time?

Those, who claim that vaccination does not control smallpox, simply shut their eyes to the evidence, which is so overwhelming that they recognize the uselessness of trying to controvert it; and so they ignore it.

The statement that vaccination consists in introducing pus into a healthy body is so absurd, so utterly based on ignorance of the facts (or on malice), that it is difficult to believe that it is meant seriously. Indeed, the great object is, to keep pus out of the virus. The processes through which it passes in preparation for the market are directed towards the express end of making certain that it does not contain pus. There is a vast difference between serum and pus, and many people talk and write as if they were ignorant of this difference. In preparing virus, the vesicles on the calf are taken before they reach the stage of pus. To make doubly sure, the serum which the vesicles contain is put through processes that eliminate pus cells and pus germs if any are present.

Of course, in former days, before bacteriology was a science and when vaccination was done from arm to arm, pus was generally introduced because there was no way of avoiding it; but, even in those days, the proportion of serious infections was small.

The danger of conveying syphilis, tuberculosis, and other infectious diseases is guarded against with equal care, and cases of this sort are so rare as to be negligible. If arm to arm vaccination is avoided, the possibility is excluded.

The fact that a few, a very few, cases of infection occur concurrent with vaccination is made much of by the antis. But, most people do not realize how rare these cases are compared to the whole number of vaccinations performed. These run into the millions every year, with perfect safety. When an infection occurs, the patient's environment is quite as likely to be the cause as is impure virus. The one solitary case of infection that occurred in my own practice, in nearly forty years, was on the arm of a child whose home surroundings were unsanitary beyond description.

We must bear in mind, too, that no human procedure is absolutely perfect. No surgical operation is so safe that it does not sometimes go wrong. Our daily acts always involve the possibility of slight danger. A small amount of risk attends everything we do in life. We are occasionally poisoned by food, but that is no reason for going hungry. The problem for us to decide is always, which of two courses involves the least danger. The danger of going unprotected against smallpox is great: that of vaccination is very small. Which will the wise man choose?

Finally, why is an "anti"? There exists a certain proportion of individuals who seem to be happiest when they are actively opposing the ideas that the majority approve of. They seem to be born that way; and it is an interesting study to discover what the motive is that prompts such an attitude.

When the great majority of soberminded, practical, thinking people are convinced of the truth of an idea, it takes a good deal of assurance on the part of a small minority to claim that they are right and the majority wrong. If they could have their way, society would revert to barbarism. It is a fortunate thing that, after all, common sense generally rules in the long run.

Is it self-conceit, that they imagine themselves wiser than the common run? Is it envy and jealousy—seeing the great majority opposed to their views and making good? Or is it just plain obstinacy, contrariness, the resolve not to yield, even though wrong? Whatever the motive, it seems to be the same that

moves the anarchist or the bolshevist. A careful study of the type seems to make possible no other conclusion.

Note: Since the foregoing was written, I found in the September issue of *The National Geographic Magazine*, page 303, the following paragraph in an article on "Map-Changing Medicine", that is worthy of being read by every one interested in public welfare. The author refers to the outbreak of the Great War:

"India was a hotbed of smallpox. Nine millions of its population were vaccinated, without a single death therefrom, and the disease no longer threatened that land's participation in the war. The Philippines contained enough cases of the same scourge to set the whole world aflame. Millions were vaccinated there, again without the death of a single person, and smallpox disappeared."

Canadian French Not a "Patois"

In the July issue of CLINICAL MEDICINE, page 515, I made use of an expression which unintentionally conveyed a wrong impression and caused some of our French-Canadian readers to enter a protest, and justly so. The sentence read as follows:

"Maria Chapdelaine will be read in translation by most readers; and it is just as well, for some of the words of French-Canadian 'patois' are not found in any dictionary."

It did not occur to me at the moment that the manner in which I used the word "patois" might lead readers to think that I was a believer in the fallacy that springs up so easily and dies so hard—the fallacy, namely, that the French spoken and written in the Province of Quebec is a "patois," or a corrupted form of the language. The fact is just the opposite. Canadian French has preserved its original purity of three hundred years ago more fully than that spoken in most of the provinces of France. This is the opinion of such competent authorities as René Bazin of the *Académie Française*, Marshal Joffre, the late Louis Frechette (poet and novelist) and others.

It is no doubt true that, in every country, the uneducated classes corrupt more or less both, the use and pronunciation of words. It is in this sense only that there exists a patois in French Canada, such as exists in every country; and it was in this sense that I used the word. For example, when Maria addresses her father as "*son père*," when she means "*mon père*," she makes use of a local dialectic form, which might be called patois. But, this is a very different thing from calling the language by that term, and one cannot blame the people of Quebec if they want to see a wide-spread error corrected. I am not sorry that the opportunity has arisen which enables me to do my part in correcting it, and my thanks are due to those members of the medical profession in Canada who wrote to me about it.

When Marshal Joffre was in America, he said, in a speech at Quebec, that he had feared, before he came, he might have difficulty in understanding his Canadian friends. But he was agreeably surprised to find that they used a purer French than did many of the provinces of France. So easily does error spread, and so hard does it die.

2920 Warren Ave.

RESOLVE is what makes a man manliest. Not puny resolve, not crude determination, not errant purpose; but that strong and indefatigable will which treads down difficulties and danger as a boy treads down the heaving, frost-laden lands of winter;—which kindles his eye and brains with a proud pulse beat toward the unattainable. Will makes men giants. It made Napoleon an emperor of kings; Bacon a fathomer of nature; Byron a tutor of passion; and the martyrs masters of Death.

—Ik Marvel.

Good Medicine

Let us learn as we go, but not forget what we know

Conducted by GEORGE H. CANDLER, M. D.

Rejuvenation of the Senile Male by a Simple Surgical Procedure *

By ICAN POPEMOFF, M. D., Moscow, Russia

Professor of Zoology, Embryology, Astrology and Deep-Sea Faunology at the Lenine-Trotsky School of Soviet Science, Moscow, Russia

Author of "Has a Gladiolus Glands?"; "The Love Life of a Lizard"; "The Monkey-Made Man," etc., etc.

EDITORIAL COMMENT. It gives the Editor keen pleasure to present Professor Popemoff's paper. The importance of his discoveries cannot be overestimated and his status in the (Soviet) Scientific World renders it impossible for any "lesser lights" to dispute his theory that, by transplantation of the prostatic gland of the walrus to the senescent male of the human species, the reproductive period of the latter may be materially prolonged, even though, unfortunately, the pinnepedia may become less numerous. When one considers that Popemoff finally worked his way up to a successful technic by experimentation upon members of the now nearly extinct Russian "haut ton," using first glands of the Australian wombat and South American armadillo, with only transitory success, it is impossible to refrain from acclaiming him as one of those transcendant geniuses who, flashing comet-like across the firmament, promise to ultimately put bit and bridle upon Nature herself. With the help of the walrus, Popemoff may be successful where other, less pertinacious and perspicuous, men have failed. At any rate, the day of the monkey has passed.

I AM about to reveal to you tonight something so momentous, so startling and yet so charmingly simple that you may have some difficulty in following me. Certainly, to do so, you must lay aside all preconceived ideas and, assuming an open mind, absorb the great new truths which I, Ican Popemoff, alone can enunciate.

First of all, Gentlemen, let me assure you that, long before Voronoff and other shallow thinkers attempted glandular implantation *I* had already reached certain definite conclusions as to why men grow old, and had made discoveries which promised to be of epochal importance. However, it was not for me to present half truths or advocate any procedure which would not prove uniformly efficacious. Therefore, while others made futile experiments with monkey glands or—as in your own extraordinary country—with *human* grafts, I secluded myself for a prolonged period and, beginning at the beginning, reasoned the entire matter out. After months of the most intense thought, the solution of the whole problem became apparent. Without wearying you with a résumé of my train of reasoning, I might state that the chasm was bridged, the guiding light gained, when I isolated this one simple fact.

Why Old Age?—Consider the Prostate

Old men have first hypertrophied and then *atrophied* prostates. It is old men with such prostates who desire revivification. Ergo: Let us forget other—and, theoretically, more important—glands, devote our attention to the restoration of normal prostatic conditions, and all will be well! Here, Gentlemen, you will note, is a profound scientific truth which cannot be controverted. If, however, further proof were needed, one has but to remember that this organ (the prostate) develops rapidly at the time of puberty and its activities coincide to a very considerable degree with those of the testicle. Remove the latter and the prostate atrophies. Remove the prostate from

*Read before the American Society for the Prolongation of the Propagative Period and Kindred Industries.

an aged man and he remains impotent, even though what have heretofore been considered the main genitalia remain. Give him a new prostate, however, and who can tell what he may not accomplish?

The main problem, as you will readily see, was already solved. It remained only to find a supply of normal prostates. Simple as the matter seemed at first, experience developed the fact that few, if any, healthy human subjects were disposed to part with their prostates for any consideration. To hold out to humanity generally the promise of prolonged virility and then dash their hopes by failing to provide the essential accessible supply of glands, appeared to me to be inhuman.

Searching for "Just-as-Good" Prostates

So, I set myself the task of investigating the prostatic characteristics of various of the warm-blooded lower animals. While anatomically acceptable, the domestic pig was discarded for esthetic reasons. Many men, unquestionably, would object to be annexed to the prostate of even the most carefully bred hog. The goat I excluded for the simple reason that, after an hour's experimental work upon one, my confrères and family refused to stay in the same apartment with me. Thus, true scientists suffer! Numerous other animals were passed upon and rejected for various good reasons, and I ultimately decided to visit Australia and see what either the kangaroo or the wombat (*phascolomys ursinus*) might afford. *P. Latifrans,* the "hairy-nosed wombat" of Southern Australia, appealed to me particularly, for the simple reason that he lived a not too continent, yet reasonably long, life, and, unlike the kangaroo, was not particularly pugnacious. Moreover, his gait was not as erratic as the former animal's and, as I had a very strong suspicion that some physical attributes of the entire-gland donor might manifest themselves in the donee or his lineal descendants, I deemed it wise to be extremely careful. Unfortunately, my suspicions in this direction were verified for, after transplanting a most beautiful prostate from a young *P. Latifrans* into its proper place in the anatomy of an old Grand Duke (whom I had taken with me for experimental purposes) I was horrified to find the latter developing, *pari passu* with sexual vigor, a most luxuriant coat of fur! Indeed, within a few weeks, even his nose was covered and we had to shave him daily. Moreover, he began to assume nocturnal habits and frequently walked about on all fours.

The Armadillo Donor and Others

Evidently, I had erred in my selection and, after long thought, I decided that the armadillo would perhaps meet the requirements better. Before proceeding to experiment with this animal, however, I used up several perfectly good wanderoos (*M. silenus*) from Ceylon. They were active—extremely so—along desired lines, resembled, even in their prime, a well-whiskered old man and were, anatomically speaking, 99 percent perfect. I had regretfully to discard them, however, because of the extremely polygamous and generally immodest tendencies the donees developed.

To study the armadillo under the most perfect conditions, I journeyed to South America and traveled until I found a perfect specimen of *Priodon gigas*—the giant armadillo. This, as you of course know, is an edentate mammal, a dasypopid, having a carapace formed by ossification of the greater part of the skin and the union of the bony scutes. For purposes of rest or defense, it rolls up in a ball. I found this peculiar habit of the creature render it unsuitable for my purpose; for, the unfortunate gentleman to whom I transferred its prostate not only became "ossified" upon the slightest provocation but, when fatigued, rolled himself up, entirely regardless of his whereabouts. As he never developed a carapace or "bony scutes" worth speaking of, this was distinctly embarrassing to his associates. Thereupon, I turned my attention to the bear (*ursus major*), but the animal's hibernating habit was an insurmountable obstacle. I felt positive that none of the men upon whom I might be called to operate would be content to sleep *solus* and continuously for five or six months each year. They might as well be dead entirely!

Animal after animal came under observation and was stricken from the list of possible donors, until finally, in considering the phocids (seals), I became convinced that success was in sight. True, some species have the hind legs projecting backwards and not flexible forward, which is a distinct disadvantage, but this drawback did not exist in the walrus or, for that matter, in the oterids, or fur seals. After due consideration, however, I decided that the seal had already been skinned so unmercifully for the pleasure of women, that it would be unfair to impose any further burden upon the species to benefit man! Moreover, some of the habits

of the male seal were quite open to criticism.

Eureka!—The Walrus

The walrus (with his solid ivory appendages) was, it appeared, the ideal animal donor and, after a long and arduous arctic journey, I succeeded in securing several perfect specimens and, later, transferred their prostates to eagerly expectant subjects, anxiously awaiting the results. To say that they were "surprising," is to put it mildly. Not only did the grafts take and the glands function, but the general "physical fitness" of the donees soon became most apparent. Amazingly so! One case is perhaps worthy of particular mention. The Baron B——, deprived by late unfortunate political events of wife, property and funds, had, though far advanced in years, supported himself by selling oysters and other molluscs at a street corner in Moscow.

Upon the day I operated, this man weighed 110 pounds and nothing about him would, under any circumstances, have attracted even the cursory attention of the most lonely spinster. His eye was dull, his grey mustache straggly and his voice weak and cracked. Just before going under ether, he did not hesitate to express to me his utter detestation of the female sex whom he termed "perfumed parasites." Three weeks after transplantation of the walrus prostate, when he was weighing around 160 pounds, at least five of his nurses had found him irresistible and, with flashing eye, deep-roaring voice and luxuriant drooping grey mustache, he indeed looked like a veritable seahorse! Moreover, he consumed at least a bushel of shell-fish a day and thus remineralized his tissues most thoroughly. Four months after leaving the hospital, he was, to my great regret, arrested for bigamy upon a colossal scale. But, so devoted were the eleven women whom he had beguiled, that not one of them would prosecute. Instead, they vied with each other in showering him with roubles and delicate cosmestibles. When I saw him last, he said he could harbor still more "parasites" (perfumed or not) and would be entirely happy if he could have a cake of ice to rest upon and cool off once in a while.

Naturally, I feel disposed to regard this as definitely proving the success of my operation. Unfortunately, however, the Baron in some way overexerted himself, ruptured an artery and died within the year. Had he been less exuberant, he might have been going yet. Other subjects recuperated with less speed: one man of seventy-five, for example, remained celibate for fully seven months after operation and then married a very robust and estimable young woman of eighteen. They opened a boarding house and, one year later, she presented him with twins. The proud father now spends most of his time fishing and loafing around the ice boats on the Volga. He says, a large family irritates him.

The Results

My records show that, altogether, nine operations were done and the results in eight cases were all that could be desired. In the first case, some unfortunate error in suturing caused occlusion of the urethra and, despite suprapubic drainage, the patient died on the third day. He was eighty years old but, nevertheless, was holding the nurse's hand tight when the end came.

The facts I have presented are, I am sure, sufficient to convince any body of scientific men, familiar with this and kindred subjects, that I have attained the heretofore unattainable and that, by undergoing the operation bearing my name, old men can be absolutely revivified.

It is most essential, of course, to procure healthy walruses and I propose ultimately to form a corporation in this country to first seek and procure the animals and then provide the glands to a limited number of licensed operators. I shall only ask a moderate royalty—or whatever it may here be termed—for each animal used. For a further definite fixed consideration, I shall be glad to operate upon satisfactory patients. Naturally, the cost will be high, but the reward great. I do not at this time feel that I would be justified in revealing my exact method of adjusting or "suspending" the animal gland. Those of you who have performed prostatectomy by the perineal route are, of course, familiar with the extreme delicacy of the operation; and will have no difficulty in imagining how much more complicated and "nice" a procedure it is to substitute for the removed gland the new prostate. There must be no error in the technic, no failure to bring walrus and human tissue into exact apposition. Therefore, American operators, skilled though they may be in ordinary "interstitial gland operations," will hardly be equipped to do the "Popemoff operation" themselves for some years to come. In the meantime, I intend to remain in this country and, having six walrus glands available, will at once do that number of operations—*privately*.

Discussion

Dr. L——, Chicago. Dr. Popemoff has indeed succeeded in astounding me. I had no

idea till he enlightened us that an armadillo *had* a prostate gland. Moreover, though, as everyone knows, I have taken particular pains to inform myself upon this subject—have indeed done a good deal of pioneer work along such lines—I never even dreamed that the prostate could be regarded as more than an auxiliary genital gland. To think of removing the prostate entire and replacing it with an animal gland renders it necessary for us to provide one made up of three lobes, two lateral and one median, and which under normal conditions should measure, if I remember correctly, one and one-half inches transversely, one and one-fourth vertically, and three-fourths of an inch longitudinally. If the prostates of an armadillo, wombat and walrus are of the same size, my knowledge of comparative anatomy must be *nil*, for the giant armadillo weighs only sixty pounds, whereas the full-grown walrus may tip the scale at 2,000 pounds. I dislike to be discourteous to a stranger but must confess that the whole "Popemoff" theory looks "fishy" to me. Anyhow, I would most thoroughly enjoy seeing the distinguished operator replace a prostate gland with another from *any* source. If *he* has the glands, I will strive earnestly to find him a subject.

Dr. T——, Chicago. I am very greatly impressed by Doctor Popemoff's description of his remarkable work. Now I, myself, have succeeded in transplanting the entire testicle from the higher anthropoids to man and the results in many cases have been surprising . . .

Dr. L——, Chicago. I'd like to see some of those "higher anthropoids" of yours and why don't you produce some of those "surprising" cases for general inspection? Now I . . .

Dr. Popemoff, Moscow, Russia (closing): It is evident from the gentlemen's remarks that I am not to receive fair treatment and I beg to withdraw from this meeting, merely stating before I leave that I have the genuine walrus glands with me and am prepared to operate upon the first six substantial citizens who desire my services. I have no time for monkey business!

(Stenographer's Note: The meeting here broke up in great disorder.)

Whatever things are good and gracious.
What'er of right has triumphed over wrong.
What Love of God or Man has rendered Precious,
Let us remember long.

So, pond'ring well the lessons they have taught us,
We tenderly may watch the years go by,
Holding in memory all the good they brought us,
Letting the evil die.

Let's Talk it Over

Acriflavine in Gonorrhea

I HAVE had the pleasure of reading many treatments for gonorrhea during the last fifteen years in the AMERICAN JOURNAL OF CLINICAL MEDICINE and, in eighteen years' experience, I have also had the opportunity to try a great many local and general systemic antiseptics, such as potassium permanganate, zinc permanganate, bichloride of mercury, solutions of boric acid; the various forms of silver salts, socalled colloidal iodine preparations; also various forms of guaiacol salts. After earnest applications of all these remedies, I have had only indifferent success in the treatment of this specific inflammation. Up to three years ago, the organic silver salts, in much stronger solutions than were advised, gave the best results I had seen. But, despite careful and painstaking care, many cases lasted over two months and not a few were subject to the complications that are commonly associated with an extension of the process; viz. posterior urethral inflammation, prostatitis, seminal vesiculitis, cystitis, epididymitis and arthritis.

About three years ago, I began to use acriflavine and mercurochrome, and, at once, I became impressed with the results of this dye-method of treatment.

The experiences which I have had are not in any sense confined to guess work. Indeed, for over a hundred cases, I have made microscopical examinations in each one in order to be sure of the diagnosis and to determine the time of cure. I also made many microscopic observations during the course of the disease.

I have found that acriflavine (Abbott), in a 1:4000 solution, given in pint irrigations for the first 48 hours and followed by daily injection with a 1:1000 solution of acriflavine, three times daily, by the patient himself (using a B. & D. rubber-tipped asepto syringe) commonly *stopped* the discharge in 24 to 48 hours in over 90% of cases. It eliminated urethral burning and chordee within the initial 48-hour period of treatment. If, however, treatment stops at this point, the trouble usually begins again with a recrudescence of the discharge, urethral burning, penile engorgement and chordee, and the disease continues much as if untreated. If, on the other hand, the daily irrigation of 1:1000 acriflavine, is persisted in, with the hand injection, 3 times daily, there are virtually no symptoms referable to this disease, except that a few patients complained of slight itching in the anterior portion of the penile urethra.

Results:—

About 85 percent of these patients were cured in from 15 to 25 days. That is to say, after at least four days of cessation of treatment, there was no evidence of any urethral discharge or of complications and the patients did not come back for further treatment. Many of these, I have seen in my practice later on, and they all stated that they had had no recurrence.

About 15 to 20 percent of my cases showed a cloudy second-glass urine, with moderate frequency of micturition. In this last series of cases, I have had no reason to regret the use of a sterile catheter into the posterior urethra after a thorough irrigation of the anterior urethra, for the purpose of introducing 8 ounces of a 1:1000 solution of acriflavine through the posterior urethra into the bladder. The patients received instruction to hold the urine as long as possible. In these previously treated cases with cloudy urine, a few daily irrigations have always sufficed to clear up this complication, stopping the frequency and relieving the other symptoms of posterior urethral involvement. Strange to say, it did not prolong the course of the disease.

When the Treatment Failed and Why:—

This has been my experience with acriflavine in acute cases of gonorrhea, which have been treated by me from the beginning, in 90 percent of the cases, as previously stated. The other 10 percent make an interesting series. One case, after 5 weeks of persistent and faithful treatment with the patient faithfully cooperating with me and with no apparent posterior involvement, still complained of a slight discharge. I introduced the urethroscope and found a small ulcer, about ⅔ down the penile

urethra. After touching it with 25 percent copper sulphate solution and using a 1 percent protargol injection, the patient recovered in two weeks more.

Another patient had a hypospadias and the urethritis persisted in about an inch of the distal portion of the urethra, which admitted only a small probe. I simply could not stop this slight drop showing every 2 or 3 days, with this or any other method of local treatment.

He stuck to me, however, and, after four months' use of vaccines he was cured. I will leave it to the judgment of the readers as to whether the vaccine was of any value. I do not know myself.

The remarkable thing about this method is, first, ready control of the discharge; second, rarity of posterior urethral involvement as evinced by the second clear urine in the two-glass test; third, the cure of the disease within a month; fourth, the remarkable mildness of the disease during its entire course.

Important Rules:—

The following directions must be adhered to if success is to be assured:

1.—The acriflavine must be dissolved in a physiological saline solution. This is of the utmost importance if this powerful antiseptic is to penetrate to the papillary layer of the mucosa.

2.—The solution should always be injected at a temperature above the body heat; never, of course, at a temperature which will burn or cause local inflammation. A safe temperature to use in all is 110° Fahr.; but, in the most violent inflammations, a slightly lower temperature (100° to 105° Fahr.) is better tolerated.

3.—The tip of the irrigator must be of a suitable size to properly irrigate the urethra. It has been my experience that a one-sized urethral tip is far from suitable in all cases to irrigate the urethra properly.

4.—Enough of the solution of acriflavine must be introduced to thoroughly distend the urethral folds, in order to allow the dye to reach all of the surface of the urethra and to permeate to the deeper layers of the mucosa where this festive organism thrives, propagates and hides from all of the other, non-permeating, antiseptics.

5.—The solution must be held in the urethra, after distending it, for 2 or 3 minutes, in order to allow the dye to penetrate to this zone in the shortest possible time.

6.—Cleanliness of the glands, by washing with soap and water and immersing the penis for 15 minutes to ½ hour in hot water, I hold to be an extremely valuable adjunct in the treatment.

The cases in which this method was employed impressed me as ending in recovery more quickly than those where the patients could not or would not cooperate in this particular manner.

The office equipment necessary for the employment of this method is extremely simple.

Any irrigator with an assortment of tips; a few sizes of soft-rubber catheters; a non-greasy lubricant; a rubber sheet with a small hole in the center for the introduction of the penis, to protect the clothing, fastened in place to the clothing with 2 or 3 Backhaus clamps; and a basin to catch the solution.

After years of using other methods, acriflavine has impressed me as the greatest advance in the treatment of gonococcal inflammations that has yet been advocated.

J. B. Garlick.

Schenectady, N. Y.

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[This is a splendid discussion of a remarkably useful drug. How have other readers succeeded with acriflavine in the treatment of gonorrhea? Undoubtedly, the dye-method has shown results that are superior to those secured by older procedures. We shall be interested in hearing from others.—Ed.]

RESEARCH ASSISTANT IN CHILD HYGIENE

The United States Civil Service Commission announces an open competitive examination for research assistant in child hygiene. Vacancies in the Children's Bureau, Department of Labor, at $1,600 to $2,000 a year, and in positions requiring similar qualifications, at these or higher or lower salaries, will be filled from this examination, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

We are informed that competitors will not be required to report for examination at any place, but will be rated on education, training, experience and on publications or theses.

Applications should be made asking for Form 2118 and addressed to the Civil Service Commission, Washington, D. C.

The receipt of applications for this examination will close October 10.

CODDLING PNEUMONIA AND TYPHOID FEVER PATIENTS

Would it be presumption on the part of a graduate nurse to ask you to publish an article

on the subject of general nursing according to her standpoint? With all due respect to the medical profession, no good nurse would depreciate the profession or think of handling a case without a doctor, for, naturally, their years in college and their deeper studies make them far superior to the nurse. But, nursing I consider an entirely different branch of the medical profession. I have nursed for a number of years and I am writing from my own experience.

Dr. C. E. Page's article (this Journal, March, p. 216), on pneumonia and typhoid fever suggests starving the patients and treating them "rough." Did the man on the boat have pneumonia? Dr. E. Grant does not believe that it is possible to jugulate pneumonia. Now, what proof has Dr. Page that the late Pope would not have died, had he been allowed to go about his business instead of being put to bed?

I am strongly in favor of nourishing my patients, especially pneumonia and typhoid cases. I have seen too many cases of typhoid terminate in death through starvation and I consider it possible for a patient to have a starvation fever which will not abate until the patient is properly fed. Many times I have been called to typhoid fever cases where the family had tried to nurse them, and the patients were apparently doing well. These cases were generally in 3rd, 4th and 5th weeks of the fever. Suddenly a complication arises, a nurse is called. In twenty-four hours after the right kind of food is given, the patient shows some improvement and, after a week's good nursing, the typhoid expression leaves the face, the tense abdomen softens, the tongue (which is bright red—I say, caused from starvation) assumes its natural color.

I prefer to coddle my patients instead of treating them "rough." I mean, judicious coddling. I have seen men get a chill playing golf, and develop pneumonia. I ask, would Dr. Page have allowed them to stay up and try to perform other duties?

It is true that the majority of pneumonia patients die, and I have lost my share; but, I have seen more get well and live than die. I feed my patients every 3 hours during the day and every 4 hours during the night; with liquid when the temperature is high; plenty of cold water. I keep the bowels open, preferably by enemas; insist on an abundance of fresh air in the room. Colon lavage helps to flush the kidneys, keeps down gas and patients are not so nervous. I nurse my pneumonia patients very much as I do those with typhoid fever. I believe that pneumonia patients ought to be kept warm, especially the limbs. While I keep the windows open, and control the fever by bathing, I do not think that pneumonia patients should be allowed to become chilled through exposure, or get blue.

The actual comfort of a patient is considered to be essential for ultimate recovery. I emphatically believe in feeding my patients and I say, feed, feed, feed. Most doctors leave the feeding to the nurse.

I wish to state that I find a great deal of valuable information in CLINICAL MEDICINE.

FLORA LOWE, *R.N.*

Dallas, Texas.

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[To feed or not to feed:—It is an open question whether absolute starving, continued for several days, will enable the organism to overcome the consequences of a pneumonia or typhoid infection, which it had not been able to resist during the incubation period. It may be argued that the withholding of food still more lowers the patient's power of resistance. On the other hand, food introduced indiscriminately will, it is claimed truly, add a further burden by inducing autointoxication. We believe that, here as elsewhere, a middle way chosen wisely will prove most profitable. Careful feeding with easily digested and readily assimilated food will undoubtedly improve the nutrition of the patient. His resisting powers to disease depend, in a great measure, upon his nutrition. Therefore, we are inclined to side with our correspondent, whose interest in CLINICAL MEDICINE we appreciate. ED.]

A CORRECTION

Dr. V. N. Mehta, Bombay Presidency, Viramgam, India, informs us of an error which appeared in his article on "Rat-Bite Fever" in the July issue of CLINICAL MEDICINE, on page 536.

In Column 2, in the fifth line from the end of Paragraph 1, the sentence "they are allayed by taking sour things—," should read, "they are *aggravated* . . ."

Since the correction gives a meaning diametrically opposed to that suggested in the text, we urge our readers to record it in their copies forthwith.

FOR A NATIONAL HEALTH WEEK

In reply to your recent inquiry as to Health Week, I wish to submit my ideas, for, unless I do my part and every other physician does

his part, I have no reason to complain of the result or of the condition of affairs.

When I studied medicine, I was taught to cure disease. When my father studied medicine, he was taught to cure disease. When my grandfather gathered his herbs and bitters, rolled his own pills, ground up his own powders with pestle and mortar, he strove to cure disease. All this is now changed and, today, the stress is, to prevent disease.

The physicians are an intelligent class of teachers and talk to their pupils, the laity, as if they were of equal intelligence; which is not true. For, the army intelligence tests showed that our average mentality is 'way down.

One of the first things we must do is, to talk in a language that a child can understand. The advertiser caters in this way, and we can take a lesson from him.

Modern medicine began in 1880. At that time, the average length of life was 36 years. Now, it is 57 years. This is due to modern medicine and the story should be told through the land. The only question to settle is, what is the best way. My idea is, that we should take advantage of the already prepared anticancer crusade. I think that, if these lessons were furnished through some agency, either a lecture by some good man or a reference book compiled from a competitive-essay contest, and sent out, as the anticancer literature is being sent out, we could get good men to talk before every lodge, club, and church in the United States. I think it is our duty not to condemn, but to educate. I think the personal jealousy of physicians, together with our failure to claim recognition for our splendid achievements, is the cause of so many cults.

B. B. Morrow.

Muncie, Ind.

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[Doctor Morrow has made an excellent suggestion the putting into practice of which would bring splendid results. Undoubtedly, the people need to be told of our efforts and our accomplishments; they must be informed of the real truth in matters of common, public weal; they must no longer be left at the mercy of those who, for ulterior motives, attempt to lead them astray by misinformation, by perversion of truth or by its deliberate suppression. Plausible but erroneous propaganda, such as it is being conducted by several irregular healing cults, must ultimately result in public injury, in loss of health and of life.

However, it is just as necessary for ourselves to take stock, to clean house, and to be quite sure that we (every single medical practitioner), are fully equipped and able to deal with those problems of disturbed health that are submitted for our assistance. We must take advantage of the progress that is being recorded in matters medical; we must study and learn, and we must be proficient. Then, we may speak and act with authority and to the benefit of our patients.—Ed.]

RAT-BITE FEVER

Noticing mention of Rat-bite fever in the August (1922) issue of Clinical Medicine, but with no remarks as to the treatment, I wish to write about a case I had under my care last year. Young man 17, bitten on his thumb while helping kill rats, about April 20, 1921. I saw him April 21, with marked diphtheritic patches in throat. Gave 10,000 units of antitoxin. Throat improved speedily. I saw him again, May 4. Had some slight tenderness in thumb. Adenitis in axilla, fever 103° to 4°F. The fever would last about three days, then he would do well for three or four days, then have more fever.

I gave him echinacea, calcium sulphide, sodium sulphocarbolate, etc. However, by June 12, he was pretty thin; looked about as though in the 4th week of typhoid fever. The high temperature persisted. I wrote the State Board of Health at Austin and received reply that it was evidently a case of *spirochæta muris* infection, that the cases would usually run about three months, and generally ended in recovery. The treatment suggested was neoarsphenamine. I gave a dose of that in 10 Cc. of distilled water, at a temperature of about 65°F. There was some reaction, then considerable improvement. This was on June 18. On the 22d. I repeated the dose. There was no reaction and no more fever. The patient made a speedy convalescence.

I think that the reaction after the first dose of neoarsphenamine was partly due to eating too near to time of treatment.

I. E. Brooking.

Goldthwaite, Texas.

ABOUT BUTYN

I am glad to report highly satisfactory results with 1/5 percent solution of butyn in several operations for hernia, perineorrhaphies, tonsillectomies, circumcisions, excision of lipomas and hemorrhoid operations. I found that the duration of the anesthesia depended on the vascularity of the field of operation, lasting for

an hour or a little longer in hernia operations and about half an hour in vascular tonsils. There were no untoward effects and, at no time, was I able to find a patient who said the infiltration was painful.

I boiled my solution for two minutes after dissolving the butyn in sterile distilled water. A slight cloudiness of the solution had no effect on the duration of the anesthesia. The big advantage that butyn has over other cocaine substitutes is, that the anesthesia appears immediately after the solution is injected and the operation can be begun at once—quite an important factor for the busy surgeon.

I performed several herniotomies with a 1/10 percent solution and the anesthesia lasted long enough for me to complete an ordinary hernia operation without injection of additional solution.

The important point for securing success with the use of butyn is, to start using a solution not stronger than 1/5 percent. In this way, toxic effects and other unpleasant reactions are avoided.

Leigh F. Watson.

Chicago, Ill.

ANNUAL ROLL CALL OF THE AMERICAN RED CROSS

The Annual Roll Call of the American Red Cross for the registration of the membership for 1923 will begin Armistice Day, Nov. 11, and close on Thanksgiving Day, Nov. 30.

The ground work for the stupendous task of re-enrolling the membership throughout the world has been laid in a plan for the first complete and comprehensive system of registration of the Red Cross membership in all its active 3,300 Chapters at home and abroad. Another important feature of the round-the-world Roll Call campaign will be a universal effort to re-enlist the active service of war-time Red Cross workers in the peace program, by their participation in the Roll Call. In this way, that vast army of volunteers will once more affiliate with the work of the Red Cross in its manifold phases.

Cooperation has also been assured by Government and private maritime interests in a deep-sea Roll Call that is designed to reach every member or potential member in every part of the world who may be *en voyage* or temporarily in any port. The Navy has given assurance that its personnel afloat will be active in this special direction during the Roll Call period.

Thousands of Chapters will adopt the home canvass plan of enrollment this year, a plan which originated in Pittsburgh where, last year, it resulted in an increase in membership of fifty percent. All records in this year's campaign will be kept on a standard-size filing card which will be filed by each Chapter, thereby furnishing a permanent record of the membership in each Chapter's jurisdiction.

The outlook for an increase in membership over the record of 1921 is considered most promising; for, it is apparent that the public is now accurately informed as to the peacetime obligations the Red Cross is carrying out. The Roll Call Committee in charge of the campaign is composed of Chairman John Barton Payne, Vice Chairman James L. Fieser, Dr. Arthur W. Dunn, director of Junior American Red Cross; Mrs. John Allan Dougherty, manager of the Washington Division; M. G. Scheitlin, director of Public Information, and Douglas Griesemer, assistant to the Chairman. The membership of the American Red Cross now is approximately 4,500,000.

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[We see no good reason why this membership should not be increased to twenty or thirty million. Surely, there are that many grown-ups and children in this country who appreciate the work of the Red Cross and are willing to promote it.—Ed.]

DOCTORS—LAWS—DIABETES—VACATIONS

The Spirit of your Journal moves me and I must talk.

The Medical parasite seems to be disturbing the deep sleep of the profession. The Editor suggests education of the public as the best cure. Unquestionably. Broadening public education will cure the ills of the body politic.

But, doctors run a sort of mutual admiration society in which the criticisms, bouquets and advices are distributed among themselves. We must not advertise! Yet, the drugless cults are maintaining a wide program of propaganda calculated to miseducate the public along the line of their ideas. Many members of the medical profession are helping the irregulars in their propaganda by their "therapeutic nihilism."

Is it not true that, as a matter of fact, all healing agents of whatsoever kind belong to the practice of medicine? Also, is it not a fact that the medical profession is fairly well informed in the theory and practice of all the drugless cults? If these two propositions are true, why should not the public be informed of

that fact through the public press? The American Medical Association could do no greater work for the present and future of the profession and for the public than to inaugurate and maintain a campaign of education on these matters.

The Volstead Act. "Let the Law be obeyed." Surely. But, we cannot help observing that paternalism and bureaucracy can never make for good citizenship. For organizations to force duly elected officials to do their duty, smells of Ku Klux, which is not a good odor to the nostrils of old fashioned individualistic Americans. The fact is, and has been all over this country, that any law that did not meet with the approval of a large majority of the citizens necessarily soon became a dead law. And this is as it should be. This nation was not created to be governed, it must govern itself or fail.

Diabetes. Being one of the elect for eleven years, I am naturally interested in Dr. McDonald's article in the August issue. There seems to be one outstanding feature in diabetes and that is due to INCOMPLETE METABOLISM. Exercise and limitation of diet go far to prevent its evil effects. Remineralization and eliminative efforts aid hygiene. Many cases have shown that, if this treatment can be maintained for a few years, the body cells readjust themselves and life continues very much as in the normal individual.

Vacations. Trout. These words are synonyms to me. Last Saturday (Aug. 12), I took eighteen trout on flies, about thirty miles west of my home. If nothing turns up to prevent, I expect to land one or two tomorrow evening (Aug. 18). If I get one, I shall roll it in cornmeal, fry it in bacon grease and eat it for you all at supper tomorrow evening. I'll be up where the water runs down hill and the stars shine at night, on God's pulpit, a mile and a half above sea level.

E. I. RAYMOND.

Wellington, Colo.

[In a later communication, Doctor Raymond informs us that he caught those trout on schedule, and ate them, too. Then, he excites our fervid envy by describing how he is about to go up a pass, about sixty-five miles west from his residence, which opens up a view from among the pines of the snowy range—the Shining Mountains—for a hundred miles. The pass is high enough to create the illusion of looking down on the snow fields, and it is probably one of the most magnificent views in the west. How would that be for a vacation trip? True, it's too late, this year. But, next summer . . . We have an idea that we know where to spend our next vacation.

By now, everybody is probably back from their summer outings, and "all set" for the work of fall and winter. Better look over your medicine cabinet. Clean out the old stuff that has spoiled, and replace it with fresh drugs. Look over your surgical and obstetrical kits, so as to be ready for good work, whenever the call may come.—ED.]

CONGENITAL ONYCHAUXIS*

I herewith present a picture of a case of the abnormality named in the title, which illustrates the condition very plainly. These congenital troubles are of very rare occurrence and, in my forty years' experience, this is the

first case I have encountered. During the years I spent in New York clinics, I do not recall seeing a like case presented.

This child is one in a family of seven and the only member so afflicted. The others are very healthy in every respect. This girl is about 10 years of age, very bright mentally and possesses considerable musical talent. She

*Abnormal growth of the Nails of the Fingers and toes (onychogryphosis).

learns easily and is very studious. In all other respects, she seems perfectly well.

When she came to me a year ago this season, the nails were all diseased, oozing a yellow pustular material, with ulcerative patches all around the nails. The odor from the discharge was very offensive. I first enveloped her toes and fingers in an antiseptic solution (the "A. B. C." Solution), covering the dressings with Cellusilk so as to exclude the air. After the odor and inflammatory condition had been conquered, I substituted an antiseptic powder composed of acetanilid, subgallate of bismuth, urotropin, boracic acid and compound stearate of zinc. This quickly cured her up. The appearance of the feet at that time, reminded me of leprosy.

It may be worth while to relate, that last year this patient was at a hospital for several weeks and they were unable to do anything for her relief.

Hebra and Wilson reported cases of this type involving three generations. They denominated it *Hyperkeratosis Subungualis*. They spent one day and night studying out some outlandish name to give it, and succeeded. The authorities do not say what to do for the relief of this patient. If some of you bright lights have had an inspiration along this line, open up and tell us what to do. Would enucleation of the finger nails (that is, completely removing the nails) relieve the child of this abnormality? If some of you have succeeded, I can do likewise.

J. H. Lowrey.

Neola, Iowa.

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[According to Hyde, the excessive development of the nails, or the keratomatous changes, do not affect only the nails but involve the entire matrix. Owing to circulatory disturbances, the hands and the feet of these patients are invariably the seat of hyperidrosis in various grades. (Still, Hazen asserts that there may be hypertrophy of the nails that is not associated with hyperidrosis). In Hyde's opinion, these conditions are expressions of an effort on the part of the skin of hand and foot, and of the nails as well, to protect a constantly moistened and, therefore, abnormally vulnerable surface, from the effects of maceration.

As to treatment, nothing very promising can be found in literature. The suppuration that Doctor Lowrey controlled effectively must, of course, be overcome. Knowles points out that, if an underlying cause can be determined, treatment should be directed to that end. Tonics may be indicated, he says, and arsenic may be prescribed with success in some cases.

He adds: "thickening of the nails frequently responds to x-ray treatment, the exposures are from five to ten minutes' duration; the medium tube is placed six inches from the nail. Salicylic acid plaster, cut to fit the affected nail and worn more or less continuously until the softening effect has been sufficient, is efficacious; or salicylic acid 10 to 20 grains (0.625-1.25) to ½ ounce (16.) each of lead plaster and petrolatum." This last treatment, we fear, would not be applicable in Doctor Lowrey's little patient because of the peculiarities of the case.

Ormsby points out that, in one case of onychauxis reported by Hollender, hypopituitarism was given as a cause. This is quite in keeping with present-day therapeutic tendencies and it can do no earthly harm to proceed on the suggestion. The child would be given a preparation representing the whole hypophysis, anterior as well as posterior, in cautious doses. Possibly, in fact probably, any endocrine defect, if it exists, would be multiple and some other endocrine substances might be indicated.

Whether surgical treatment would promise results, that is, removal of the nails and curretting the nail beds, seems to us rather doubtful. We shall be interested, though, in learning whether other readers of Clinical Medicine have seen similar cases and whether any therapeutic procedures have produced results.—Ed.]

SAUERKRAUT AND ADVERTISING

Two things were impressed upon me by reading a little pamphlet entitled "The Story of Sauerkraut", as it was recently told by Mr. Geo. E. Wolf, at the Hotel LaSalle, before the International Stewards Association. The one is a confirmation of the trite saying that many a true story is told in jest; and the other is, that physicians might, and should, learn advertising—not blatant, prevaricating, noisy and noisome publicity, but, truthful and thought-compelling advertising.

A story is sometimes told of a country doctor, one of whose patients was an elderly blacksmith of German nationality, very ill with typhoid fever and constantly getting worse. The patient persistently asked for sauerkraut and the doctor, at first horrified, finally made up his mind that it didn't matter because the patient would die anyway, and told the latter's wife to let him have what he wished. The next day, the patient was much

improved, whereupon the doctor entered in his memorandum book: "Sauerkraut excellent for typhoid fever." Presently, he was called to another patient, an American, also ill with typhoid fever, to whom he at once ordered sauerkraut as being surely a specific for the disease. This patient died. The doctor then modified his entry to read, "Sauerkraut good in typhoid fever but only for Germans—not for Americans."

I have often suspected that the fatal outcome in the second case might well have been due to incorrect (because insufficient) cooking of the sauerkraut.

Another point that impressed itself upon me on reading Mr. Wolf's address was the persuasiveness and convincing character of good advertising that is gotten out by a man who is full of his subject, who is enthusiastic and who knows how to get under one's skin. Mr. Wolf's little talk shows that he read up on sauerkraut most intensively and that he consulted particularly medical authorities with whose assistance he succeeded in making an excellent case.

Of course, we have long known that sauerkraut is a mighty good thing. Not only is it good to eat (providing always that it has the proper fixings) but, no less, it exerts a beneficial action upon the function of the intestinal tract. It is called the poor man's dish and the rich man's medicine. According to Mr. Wolf (being a layman, he does not give references, so he will have to bear the responsibility of his own quotations), Pasteur declared that sauerkraut was the most useful and helpful vegetable eaten on earth. It is a great conditioner, keeping your little insides clean and preventing the development of poisons that make you sick. Mr. Wolf's studies have aroused in him such enthusiasm that he claims the highest authorities in the world in support of his contention that sauerkraut is actually and effectively a cure for human ills from colic to headache.

Nor is this assertion so far-fetched or absurd, if we remember that sauerkraut is raw cabbage, caused to ferment through the development of lactic-acid bacilli. For that reason, sauerkraut suitably prepared and, no less, the juice are invaluable for numerous conditions of intestinal upset. In order to be convincing, a story must be put over with a degree of vim; so, instead of employing our own "scientific" but dry as dust English, we prefer to quote Mr. Wolf. He says:

"Now, let me tell you something else. You have heard of the famous Elie Metchnikoff of the Pasteur Institute. Metchnikoff discovered the good little bugs called lactic-acid bacilli which thrive in buttermilk, kumiss, matzoon, Bulgarian clabber and yahourt. These are the germs which destroy the poisons in our systems, and the strongest and most energetic of these little friends are the kind that flourish in sauerkraut juice, the very same juice which our wives and our chefs so often throw away, pouring it down the sink.

"These little germs in sauerkraut are the fighters which attack and destroy the bad germs which cause disease. They are the Dempseys of the human system, they don't know when they're licked, they keep on fighting till they win. They're the best friends we've got today in the arena of life. And I ask you to remember that these germs of health literally teem in sauerkraut and sauerkraut juice. These are scientific facts, gentlemen.

"Those friends of yours who are fading out on the disappearing screen of diabetes will thank you for the information that sauerkraut is now recognized absolutely and positively as a direct cure and is given first place in no less an authority than Ander's 'Practice of Medicine.'

"And you can go further than this and still be on the safe side of the facts in the case. You can carry the message back to the ladies of your hearts and homes that, if they want to become more beautiful than they are—sauerkraut will make them so. It is the most wonderful blood purifier we have, vastly more effective than yeast as a benefit for the complexion.

"For those of you who revel in the good things of the table, you who look upon life as a Feast Day and have never stinted your palates or your appetites—for you there is one sovereign remedy for indigestion and dyspepsia—one positive preventive of stomach trouble, and it isn't pills or powder but just—sauerkraut.

"If your liver is out of whack, if you are waxing fat, in fair round belly with good capon lined—get you to the kraut keg as fast as you can trot, for sauerkraut is the panacea that will fix your clock in no time.

"If you want a tonic, if you are off your feed, if your kidneys are a bit suspicious or your joints have begun to creak with the dagger stabs of rheumatism—good old sauerkraut is the best doctor you can summon—and I now propose to prove what I have said and show you that this thing of sauerkraut is no joke but a reality.

"Over in Russia the leading medical authority of that country says: 'Sauerkraut juice is Nature's own best medicine for disorders of the stomach and intestines. It is the greatest cleanser in the whole category of foods.'

"A leading authority of Germany has gone on record as follows: 'Sauerkraut, especially the juice, is an invaluable food treatment for stomach, bowels and blood. There is nothing better for impure blood.'

"The famous Dr. Brokaw of St. Louis said: 'Spinach may be the broom of the stomach but sauerkraut is the vacuum cleaner.'

"Still another eminent authority tells us: 'I have found that the juice of common sauerkraut, in bulk or in cans, to be a most dependable remedy for disturbances of health

arising from disordered stomachs. It is a preventive of seasickness, dizziness and vertigo and a direct remedy for gastritis. I doubt if there is anything equal to it for sour stomach or for ridding the system of uric acid.'

"Sauerkraut is the greatest antiscorbutic known. It prevents scurvy. Captain Cook discovered this fact in the year 1776, and it is still used on British vessels and others on long cruises to keep the sailors in condition. And for this same reason it is an excellent curative for many dieases of the skin.

"Chicken soup is considered nourishing, and it is; yet the average is only 90 calories, whereas sauerkraut has nearly double the energy value—125 calories.

"We think of beef soup with 120 calories as a tolerably substantial starter to a good solid meal, but sauerkraut with 125 calories has greater heat value by a considerable margin.

"Government reports go further than this and show conclusively the superiority of sauerkraut in food value as against tomatoes 48 calories, asparagus 80, okra 60, onions 116, string beans 95, vegetable soup 40, pumpkin pie 120, turnips 'nix'—and sauerkraut 125.

"Over in Copenhagen, sauerkraut is regularly used as a cure for lumbago, obesity and flatulency. An authority of the American Institute says, the right dose for such purpose is about three tablespoonsful before meals, and the celebrated Dr. Arnold Lorand of Carlsbad, Germany, prescribes regularly a small wineglassful of sauerkraut juice half an hour before meals and before retiring, and says it is the best health medicine under the sun.

"I am informed that Dr. Edward Ochsner has given this proposition certain scientific tests at the Augustana Hospital as dietetic for diabetes, and, humble as the remedy may seem now, this distinguished gentleman is not alone in the matter. Another famous Chicagoan, Dr. Sadler, credits sauerkraut with excellent values as a most serviceable health food and health medicine.

"Dr. Hugo Friedstein, another noted specialist of Chicago, says: 'I have repeatedly prescribed the juice of raw sauerkraut for diabetics and with very gratifying results. I have also noted good results in cases of indigestion, dyspepsia and derangements of the stomach.'

"The 'Scientific Revue' of France recommends a generous diet of sauerkraut for athletes, for soldiers, for workers generally and for keeping fit."

With all this array of evidence, we can well understand Mr. Wolf's conclusion that the time has passed when sauerkraut needs any apology from anybody. It is high in vitamine contents, rich in mineral salts and, altogether, merits the praise that has been bestowed upon it by Mr. Wolf. Moreover, this eulogy was fully confirmed and supported by Dr. Harvey Wiley who recommends sauerkraut, especially raw, for the reason that cooking injures some of the vitamines. In this form, Wiley claims, it is much more wholesome and, he thinks, more palatable.

So, here is a panegyric on sauerkraut that we doctors may heed, even though it was pronounced by a layman and by an advertiser. Talking of advertising, it would be well—that is, well for us and well for our patients, if we could popularize much-needed information on physiology, diet and various other things that we are trying to teach the public in so attractive and entertaining a form as Mr. Wolf has done with his story of sauerkraut.

THE PROBLEM OF THE OPIUM-ADDICT

I have just finished reading Doctor Goetz's article, "The Problem of the Opium-Addict," in your September issue, and desire to say that I regard it as among the best I have ever read on this important subject.

I have often wished that some one who is qualified, as Doctor Goetz undoubtedly is, would deal with the subject as he has. He can and does speak authoritatively, for his long experience and honest efforts in behalf of these unfortunates has placed him in a position to thoroughly understand them and their disease.

Too much stress can not be placed on the fact that addicts to opium are diseased people. The continued use of opium not only predisposes to but produces disease. In all cases of opium addiction, there is intestinal disease. In all cases of opium addiction, there is intestinal stasis with consequent autointoxication. This condition superinduces all manner of physical and mental unrest and has a marked deteriorating effect on essential body tissues.

Continued overstimulation of the brain, such as opium produces, ultimately slows up the intellect to a condition of mental degeneracy.

Almost all opium habitués are impotent and none are fit to reproduce. Continued failure to menstruate, in the female, induces pelvic disorders and a multitude of symptoms observed in the neurotic.

I have frequently called in consultation at Doctor Goetz's sanatorium, in rectal cases which were to me quite clearly due to long continued intestinal stasis resulting from the use of opium in some form.

I believe that the "fear" mentioned by Doctor Goetz keeps many of these patients from submitting to the treatment which leads to a cure of their disease. As suggested, they select what to them appears to be the easiest method, viz: a reduction method, which seldom, if ever, results in a permanent cure.

Those who have been treated by the reduction method describe it as a period of con-

tinual suffering without receiving any lasting beneficial results.

Many well-informed physicians are of the opinion that there are more opium addicts in this country now than before the Harrison Anti-Narcotic Law became operative.

The advertising that drug taking has had in the lay press may have been instrumental in increasing the number of addicts. Again, many take the view that there has been a decided increase in the number, especially in some communities, since the Eighteenth Amendment has been put into effect.

However all this may be, there remains in this country a substantially increasing percentage of the population, affected by drug taking, which renders the majority of them unfit as earners and providers.

If they are able to work (and many are not), about all their earnings are used to pay for drugs. If the family physician undertakes to help them, he does so at his peril. Consequently, they fall into the hands of the bootlegger drug peddlers, and, paying the exorbitant prices asked for drugs, forces many of them to resort to questionable methods so that they may obtain their accustomed supply of the drug.

Within the past week, an aged man came to this city from an adjoining state and destroyed himself by leaping from a high bridge into the Tennessee river. According to newspaper report, he was an addict and had found life intolerable, as his fortune was gone and his funds, to provide what he considered immediate necessities, exhausted. He was too old to get a position for any kind of work; so, there seemed no other way left open to him.

In my judgment, it is little less than a crime to place the enforcement of the Anti-Narcotic law, insofar as it applies to treatment of these unfortunate patients, in the hands of laymen. Few medical men even understand the situation or the disease, and it is not to be expected that those without medical training could or do understand fully the responsibility to these unfortunate people.

Henry F. Alexander.

Knoxville, Tenn.

AN IDEAL READER

My first medicine case, in 1905, was an Abbott case. My last case is an Abbott medicine case.

I have read the Clinic and the Journal since that time. I am glad to say, I had much profit and pleasure in its perusal and gained many invaluable ideas of treatment and diagnosis from its pages.

The words of wisdom from many of the older contributors have left a life long impression upon my mind and I am glad that I have read the journal so long. Of course, there have been articles that did not reach my brain cells and which I could in no way agree with. I have enjoyed many of these from more than one point of view, however; and, while I may not have approved, I could easily tolerate them because they were interesting. I am sending this rambling, unedited article (see the article on page 762) from my camp in the woods and shall, in no way, feel peeved if you can not use it. Your job is, to take what you want for the multitude of readers.

If it is unacceptable, just tear it up, and I promise that, if you do, I will try to write something else, later when I get home again.

J. B. Garlick.

Schenectady, N. Y.

[This letter came as a sort of convoy to Doctor Garlick's report on his experiences with acriflavine in the treatment of gonorrhea (page 762). We print it, because it illustrates the mental attitude of the reader as we should wish him to be. It is impossible to print only such articles in a medical journal—or in any other journal, for that matter—as will receive the approval of *all* its readers. Some may arouse the ire of a few readers, while they amuse, entertain and, even, instruct others. The position taken by Doctor Garlick evidently is the proper one. He may not approve of some articles; yet, he can easily tolerate them because they are interesting. We appreciate the good Doctor's remarks and hope that he will be a frequent contributor to the reading pages of Clinical Medicine.—Ed.]

COLON OBSTRUCTION

I have been watching for and reading with much interest the "Case Solutions and Problems" presented in your "Surgical Seminar." One of them calls to my mind a similar case occurring in an old lady some seventy years of age. Intestinal obstruction occurring in one of this age usually means death, unless promptly relieved. The treatment instituted in this case was unique; at least it was so to me, as I had never known it to be used before. Everything pointed to a low obstruction, probably an intussusception in the descending colon.

The obstruction was complete, not even gas escaping, and it was attended with all the asso-

ciated symptoms. Rectal enemas of different kinds were tried. Air was injected by means of a bicycle pump; gas by means of a Seidlitz powder combination. All of these agents we were unable to hold within the bowel, as the sphincter seemed to be relaxed. At last, the idea of the toy balloon came to me. Immediately securing one, I fastened it safely (after deflating) to the distal end of a rectal tube, by means of adhesive plaster, passed it as high up as possible and inflated it with air by means of the bicycle pump.

Of course, the inflating was done carefully and the pressure cautiously graduated. The balloon was allowed to remain in situ a few moments and gently withdrawn. To our agreeable surprise, it was followed by an immense amount of flatus and fecal matter.

This old lady is still living and holds in grateful remembrance the man who invented the toy balloon.

H. L. Brush.

Conneaut Lake, Pa.

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[She would, naturally. The treatment was ingenious; still, it was fortunate that the obstruction was low. The case report is interesting and shows what can be accomplished by the resourceful physician.—Ed.]

EPILEPSY AND THE ENDOCRINES

In the September number of "The American Journal of Clinical Medicine" (p. 643) Doctor Tracy gives some items on epilepsy and its treatment, that lead me to think that it might be of interest for me to report the treatment of a case from a different standpoint. After the report of the case, I will give my reasons for the line of treatment.

Case 1.—About the middle of May, 1922, I was asked to see a boy, Willie, who was having some form of spells. I found a boy about 8 years old, fleshy, who was having spells about once in 24 hours, mostly at night. He had been out of school for some time on account of the spells. Without going into the details further, the affection was diagnosed as *petit mal*. The boy was given parathyroid, 1/10 grain, and thyroid, ½ grain, three times a day. The only restriction in diet was, that he was to nearly quit eating meat, of which he consumed large amounts at every meal. I found that, later, he ate only a little meat about twice a week.

The spells at once stopped. In a few days, the medicine was reduced to two doses a day and, in about a week, the boy was sent back to school. He was naturally a little timid, and, one day not responding quite as quickly to a regulation as the teacher thought he should, she "paddled" him. This scared him and he went home and had another spasm. The dose was put back to three a day again for a few days and then returned to two, and he was returned to school with an explanation to the teacher. He had no further trouble and, in a short time, the medicine was given only once a day and then stopped.

He has had no medicine now for about a month and is in school and doing well. Another interesting feature is that, before the summer vacation was over, Willie had changed from a timid boy to one rather aggressive, a leader among the boys of his age. (I am writing September 13.)

Now, why this line of treatment? (1). In my limited observation, I am convinced that all epileptics have a minus thyroid. The habitus of this boy showed it plainly. This would call for thyroid treatment. (2). I believe that the parathyroids destroy the waste products of protein digestion, such as adenin and other amino acids, and probably some other toxins. With a parathyroid minus, these are not destroyed, or only partially, and the child with a tendency to spasm, or irritation, responds with a spasm. If these two glands are stimulated into activity by such treatment, so that the toxins are taken care of, the spells should stop even after the medicine is discontinued.

In another case, that I might call No. 2, a girl about 8 years old was given the same line of treatment and she has had no medicine now for a couple of months. That thyroid alone will not give the same results, is shown by the fact that it was given to a girl of 5 for some weeks, ½ grain a day, with good results as to the general health, but it only temporarily checked some spells that she had. One-tenth grain of parathyroid every other day, added to the thyroid substance, gave the same results as in the other cases.

G. H. French.

Herrin, Ill.

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[Dr. French's observation of thyroid deficiency in epileptics is in agreement with that of most clinicians. In every patient afflicted with epilepsy, the addition of thyroid substance to other remedies administered will give good results. The employment of parathyroid substance, also, rests on a sound basis, since the function of this organ is, probably, antitetanic.

It must not be forgotten, though, that by no

means all epileptic patients suffer because of like causes. In some, the attacks are induced, with almost absolute regularity, by a fecal impaction. In young girls the seizures are frequently associated with systemic disturbances due to the menstruation. Other inciting causes have been mentioned.

It remains, to classify and study the various forms of epilepsy, or, perhaps better, the epilepsies, being mindful that the etiology of these afflictions is varied and multiple. Accordingly, the treatment must be adapted to the peculiarities of the individual patient; it being a serious mistake to impose the same treatment upon all children who have "spells." Ed.]

WE START TO DIE AS SOON AS WE'RE BORN! But Why Hurry the Process?

These headlines present a rather startling conception of life. That conception is none the less literally true.

Equally true is the fact that a careless attitude toward essentials of living—a remarkable failure to put into use established means of conserving health and vigor — provides true grounds for the question put in the title.

We speak with bated breath of thousands killed in battle—and don't even discuss or notice the fact that hundreds of thousands of lives are hurried to an end each year, by absolutely known and preventable causes. We'll thankfully go to a hospital for six, eight or ten weeks, to recover and convalesce from typhoid fever or dysentery. But we won't give the few hours of time and the few moments of thought which, given by enough of us, would control these diseases almost to the point of extinction. We'll collectively spend hundreds of thousands of dollars to build tuberculosis sanatoria. And we won't spend a few moments' time, personally, to educate a sufferer of the disease—ourselves or another—in the means of preventing its spread.

Figures available, from sources that are beyond question, show that more than 250,000 deaths, not to mention 4,500,000 cases of sickness each year, result from neglect of simple and practical means to prevent the spread of typhoid fever, dysentery, summer complaint, and hook worm. Thus, in our national neglect of sanitation—in which each of us has his individual share of guilt of what amounts to murder—we are allowing ourselves to be killed, each year, in numbers which far exceed the total loss of life in the A. E. F. during the world war.

The research department of the Indiana State Board of Health indicts the outdoor toilet as responsible for 85 percent of the cases of typhoid fever. In Johnstown, Pa., as early as 1915, research of the Children's Bureau of Washington, D. C., turned up these facts: In homes where bathtubs were found, the death rate of babies was less than half of that in homes without them. In homes where there was a water-closet, the death rate was 108.3 as against 169.3 where there were only yard privies. If these facts say anything at all, they shout aloud, "Spread the knowledge and the means of sanitation; insist on safe disposal of sewage and protect water supply from defilement."

Surely it is high time to move along the line of ending this heedless waste of life and health. The National Good Health Week movement is one in which we can all take active part, spreading the idea of better health protection, and extending knowledge of ways and means to that most desirable end. Every time we put into use any of the perfectly available means of modern sanitation—every time we educate and inform our neighbor regarding them—we reduce our own hazard of bad health and help to raise the life expectancy of every member of our families and our communities.

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[This National Health Week movement is fostered by the Good Health Week Promotion Bureau, of Milwaukee, Wisconsin. It is an additional agency working in the direction that we mentioned in an editorial published in Clinical Medicine for July last (p. 468) and concerning which we have published several further articles (see for instance the editorial on page 716 of this issue).

In a folder entitled "Telling the Nation" and which can be secured by addressing this Bureau (Room 704, 209 Grand Ave., Milwaukee, Wisc.) much valuable information is transmitted concerning the promotion and preservation of good health.

The Good Health Week Promotion Bureau intends to hold a "Good Health Week" from October 23 to 30. It hopes thereby to stimulate the layman's interest in that portion of public health work in which he may do his part.—Ed.]

"FOR A NATIONAL HEALTH WEEK"

Since we published our first editorial article under the title heading this editorial (this Journal, July, p. 468), we have received information from the National Health Council, with national headquarters in Washington and Com-

mon Service Committee of New York (370 Seventh Ave.), of a similar movement. In addition to this, we have been told that the Good Health Week Promotion Bureau, Milwaukee, Wisc., intends to inaugurate a Good Health Week to be observed from October 23 to 30. The purpose of both movements is essentially identical, namely, the improvement of the people's health, of prevention of illness. Furthermore, we are told that the House of Delegates of the American Medical Association passed a resolution approving the propaganda of popular education tending to foster the preservation of health and the prevention of disease.

The fact that the American Medical Association has officially declared its approval of such a popular health movement is to be greeted with acclaim. The American Medical Association is the logical spokesman of the medical profession in America. It has the organization necessary to "put over" such a movement and it possesses considerable influence with the various associated factors, or professions, upon which the medical profession depends for support and cooperation.

For these reasons, we are well content to merge our individualistic efforts in the greater movement of the American Medical Association and of the other agencies. While the great work will be made up of individual activities, there should, naturally, be a guiding central office in which the various efforts are coordinated.

We wish to remind our readers that, in such a better-health propaganda, our colleagues of the dental, the pharmaceutal and chemical professions are closely interested and allied. All of them are necessary to produce results. The sanitarians form a subordinate group, as it were, because they put into practice those truths and facts that the four other professions have discovered and established.

It is to be kept in mind, too, that a very essential factor in this propaganda is that particular movement which we ourselves had in view from the beginning; which is, a campaign for popular education. We deem it essential that the people should be made to understand that the present-day conditions of improved sanitation, of lessened mortality, of diminished morbidity from infectious diseases, etc., etc., are the direct result of the continued and persistent efforts, studies, researches of physicians (including bacteriologists, as a matter of course), dentists, pharmacists, chemists and others. Furthermore, we believe it to be a self-evident fact that such a campaign for popular education will correct numerous misrepresentations and erroneous statements on the part of irregular healing cults, such as Chiropractors, faith healers and all the rest of them. We, on our part, have set ourselves the task to enable our readers to give just that kind of popular information, to show what our own and our associated professions have accomplished, in how far the nation and the race have been benefitted and, thereby, to establish our claim that we are logically and properly the guardians of the people's health.

We mean to continue in our propaganda without determining upon any particular period of time, any special week of deliberate effort. The people need teaching all the time. When they understand, they will draw the logical inferences on their own behalf. After all, the people reason logically. They draw their conclusions and will look up to those who can prove their claim to possess knowledge and ability to help them.—Ed.]

Dr. Chas. W. Hardman, Laton, Calif.

OLD-TIME DOCTORS AND OLD-TIME REMEDIES

No man rejoices more than myself over the progress of elegant pharmacy and the addition of new and valuable remedies to our materia medica; and I often marvel at the nerve I displayed, in the long ago, when I was dosed with great mugfuls of awful decoctions to get the effect of a few modern alkaloidal granules no bigger than a squirrel shot. But, I sometimes think that we make a mistake in forgetting many of our older and cruder drugs that served us so well in the past, when grandmother had

to do much of the emergency doctoring when the old family doctor could not be had.

The household remedies, always found in every home, were few and crude but decidedly effective, as they were used promptly and heroically. While many of them are seldom used now by the medical profession, they are none the less valuable and dependable. In those days, when I "read medicine" under dear old Doctor M., it was a rule of practice, both among the doctors and the mothers and old women who did what they could for the sufferers before the arrival of the doctor, to unload stomach and bowels wherever the symptoms indicated the presence of offending material in the digestive tract. In addition to a full supply of powdered ipecac, tartar emetic and lobelia, there was generally found in every home a great big pewter, piston-drive, syringe that held at least a pint.

There were certain advantages in the adoption of the old-time remedies. They were always in reach; they were fairly dependable and seldom caused any ill-effects from overdosing. In fact, it was almost impossible to overdose with some of the infusions, teas and decoctions, unless the stomach capacity was far beyond the normal.

Green-apple colic, cold-dumpling bellyache and "sweet-tater" wind colic didn't have a ghost of a show when old-time medicine was at its zenith. At the first sign of agony on the face of any boy in green-apple season, especially if he came to the house with his hand over his stomach, he got a whaling big, sickening mug of lukewarm water into which a spoonful of ipecac and mustard had been stirred, which he was told to "swallow all down," and then, when he had disgorged his load of half-ripe apples, he was given another mug of warm water, to make sure of any remnants of his forbidden fruit. If his cramps persisted, he was unloaded promptly from below. The old pewter gun was filled with a pint of hot turpentine-soap-suds and the charge delivered steadily per rectum. This promptly emptied the lower bowel, and that boy had nothing in his alimentary tract but vacancy.

This prompt line of action undoubtedly relieved most cases of "acute indigestion," whatever that term means nowadays, and prevented more serious gastroenteric troubles following.

Speaking of the old metal syringe reminds me of an accident with so simple an instrument which I witnessed when my old preceptor took me with him as his "assistant" to see a rather urgent case. It was in the days of the old canal boats that plied between Lynchburg and Richmond on the James River and Kanawha Canal. The patient was the Captain on a freight boat that had tied up in the "basin" here. He was a big, red-faced, beefy looking fellow and was drawn up, writhing and howling, on his bunk in the cabin. He had evidently eaten unwisely and immoderately and was suffering terribly with old-fashioned "cramp colic." My dear old preceptor saw that quick action was necessary, both on his part and that of the sick man, so, he made one of the Negro hands bring him a big wash basin of hot water and a bar of turpentine soap. He filled the old gun with a pint of strong suds and told the hands to "pull down his britches and bring his butt to the edge of the bunk." When they got him in position, the old doctor sent a pint up the captain's lower bowel, telling him to "keep it up a while." Turning around, he stooped down and filled his syringe, again, and winking at me said: "He is a big fellow and can stand another load." The bunk was about four feet high. Unfortunately, my old friend was very deaf and, as he arose and faced the scene of action, he failed to hear the warning cry of the captain to "Look out thar doctor." The Captain fired first and my good old friend was almost swept off his feet by the foul charge of soap suds, flatus and feces. The old doctor was a good Baptist, but I would not like to write down his words on that occasion, when he succeeded in clearing his mouth and getting his breath. The Captain's intentions were good; but, in the language of a medical student wag, "his sphincters couldn't stand the strain."

Poultices

The poultice was an adjunct of universal application in those days. Although it has gone out of use almost entirely, it was of undoubted value as a pain reliever and relaxant in acute stomach and bowel congestions and spasmodic conditions, as well as congestions and inflammations of other internal organs. There are many devices for supplying warmth and moisture to the body, but anyone, who has ever experienced the comfort of a big hot *mush* poultice over a painful abdomen, will know that modern ingenuity has not yet found its equal. The mush poultice was made of corn meal and water, stirred and cooked until it was soft and very mushy and could be almost poured into an old linen bag big enough to cover the parts suffering. Where there was no tenderness, the weight of these poultices added to their comfort, and they would hold heat and moisture for hours before requiring renewal. The plain mush poultice frequently served a double purpose at my home, for, many times have I fed

my hounds on cold mush poultices, which they relished as well as the usual cornbread.

The poultice was medicated frequently to meet certain supposed indications. For example, we had the pepper poultice for counter-irritation, the spice poultice for nausea, and the hop poultice for its sedative effects. These were made from the same old mush poultice with the ingredients incorporated.

Sometimes, for convenience, these pepper poultices were made by putting the whole pods thick in the mush, and I am reminded of a rather laughable incident in connection with one of these whole-pod poultices. I had among my regular clients a good-hearted fellow who worked for the city as a laborer and who took good care of his family, but would now and then go on a mild spree, then sneak home and get himself together before he did anything to be publicly noticed. He would always deny that he had been drunk, but invariably made much groaning and claimed to be very sick. His good wife would act as if she thought he really was sick and, on one occasion when he was writhing and complaining of pains in his stomach, she covered his chest and abdomen with an immense whole-pod pepper poultice. After a while, under the combined influence of the whisky on the inside and the poultice on the outside, he leaned over the edge of the bed and began vomiting. Under the violent efforts of heaving, the old poultice extending to his neck and upon which the whole weight of his chest rested bursted out of the slazy bag and mingled with his vomit in the slop jar. With his bleared eyes and confused brain he mistook the great pods of red pepper for blood. He told his wife that he was having an awful hemorrhage and begged her to pray for him before he died. I think he joined a temperance society soon after that fright.

A Day's Work With One Remedy

I had been practicing medicine for several years, when I was called to see a patient in the country, with an old physician, for whom I entertained great respect and real affection. He took much interest in young physicians and lost no opportunity to encourage them and give them good "wrinkles" from his rich experience, that he considered would come in well some day. The old gentleman was isolated and lonesome, and begged me to stay all night with him and spend the next day visiting his patients with him. I was glad of the opportunity to have a day with this good old soul, and accepted his invitation.

The next morning, as we got in his buggy and started off, he asked me if I had ever thought of how many conditions could be met with a few single remedies. I told him that I had tried to find as many remedies for different indications as I could.

"Well," said he, "I have a few drugs that I find very dependable in a wide range of diseases, and I am going to show you today how well I get along with one of them, viz.: spirits of turpentine."

I think, during that day, I saw more sensible prescriptions of this common and very valuable remedy than I ever dreamed possible, and for conditions for which I should have used a dozen different drugs. An emulsion of turpentine was given a typhoid fever patient for its aseptic or, rather, its antiseptic effects and to dispel the tympany and restore secretion to the parched and glazed tongue. A boy got a spoonful of turpentine and castor oil as an anthelmintic. I saw it given for bronchitis; used for ulcerated sore throat; internally to stimulate the kidney to greater activity, and locally as a stimulating application to indolent sores, as a dressing to fresh wounds and as a counter-irritant.

The good old doctor was ahead of his time, for, he was an advocate of the single remedy, and a real therapeutist who believed in giving only enough of what was needed to accomplish his purposes without throwing in other things to counteract the good effects of what he knew was going to act favorably.

There are many old-time remedies that are not used, simply because we have forgotten them and more elegant preparations have taken their place. However, I wish to say that there are many conditions of the system in which no remedy has been found to exactly equal the value of a number of these old-timers.

Of course, no physician would be so foolish as to attempt to subject his patients of today to the rough, roll and tumble methods of sixty years ago, even though he felt that such practice would be better for them. Still, it is very clearly established in my mind that, by the heroic measures adopted in the long ago, many lives were saved that now would be lost either through tentative measures or from the substitution of surgical operations in purely medical cases.

C. A. Bryce.

Richmond, Va.

What Others are Doing

HYOSCINE AND MORPHINE AS A PRELIMINARY TO LOCAL ANESTHETICS

In the March issue of *Annals of Otology, Rhinology and Laryngology*, Dr. Lee M. Hurd, of New York, presented a second report of his observations in the administration of hyoscine and morphine preparatory to operations done under local anesthesia.

Doctor Hurd considers that, in all instances in which toxic symptoms, such as those of syncope or phrenic irritation, occurred, due to local anesthesia, these are largely induced by mental shock. In the human being, he says, especially in the nervous type, which is in the great majority, apprehension and fear play a very important role in shock. This role is even more important than that of the shock of the operative trauma. He insists that not only the operative field be anesthetized but blocking should be secured also for the contact ceptors and the special sense ceptors.

In Hurd's experience, the preliminary administration of hyoscine hydrobromate and morphine sulphate has eliminated the unpleasant effects of local anesthesia and has given him confidence that, no matter how nervous or apprehensive patients may be, there will be no trouble on that score during operation.

His results have been so good that he finds the operations of otolaryngology, usually done under local anesthesia, to be expanded by hyoscine-morphine to the major group, such as mastoidectomies, laryngectomies and resections of the jaw in cases in which general anesthesia is not desired.

There is this advantage, that some patients require a longer time after receiving hyoscine-morphine than the customary forty-five minutes to settle down. Also, some patients require two or three doses. This is a disadvantage in so far as it makes it impossible to appoint a definite time for the operation, since this must depend upon the period when the patient is ready.

The routine dose, namely, morphine sulphate 1/4 gr., hyoscine hydrobromate 1/100 gr., is usually given after a light meal. Whenever it may be necessary, a second dose (usually half the first) is administered. It may be necessary to change the dosage of either the morphine or the hyoscine, accordingly as the patient reacts more to one or the other.

In 300 consecutive cases, a second dose was required in 42; a third dose in 5; and the fourth dose was necessary in 2 instances. Third and fourth doses were usually needed for prolonged major operations.

In Doctor Hurd's early cases in which his patients were in the sitting position, he observed a marked drop in blood pressure. This difficulty was obviated by keeping all his patients in the recumbent position during the operation, since which time syncope and fall of blood pressure had not occurred.

Doctor Hurd stresses the important precaution of employing rigidly pure hyoscine. This may especially not contain apoatropine. The hypodermic tablets must be kept dry and fresh solutions made at the time of using, as hyoscine in solution will break down into impure and poisonous by-products in from twenty-four to forty-eight hours.

While nearly all his patients were good surgical risks, Doctor Hurd found that the poor risks did as well as the others. When the patients are ready for operation, their pulse rate is reduced, they are sleepy or sleeping and do not want to be disturbed, speech is slow and somewhat thick, there is slowed cerebration, they may be somewhat confused and, in moving from bed to operating table, they have a staggering gait. Pupils may be contracted (morphine) or dilated (hyoscine). The ideal is midway. The face usually itches, the color is good.

Doctor Hurd declares that, having had the usual run of syncopes and varying degrees of psychic shock before he began the use of hyoscine and morphine, he now has none with its use. The patient has a steady pulse, which tends to pass the anesthetic that is being absorbed on to the liver for elimination, preventing intoxication.

Morphine can be used in larger doses if cocaine is used in conjunction, and the reverse is true. Hyoscine has the same physiologic action as atropine, plus that of blocking of the mind. Blocking the sensory nerves with mor-

phine and hyoscine prevents shock and, though more local anesthesia can be used, less anesthetic is necessary, as a matter of practice.

Procaine is quickly eliminated and is, therefore, better than cocaine.

Doctor Hurd's patients are kept in the office two or three hours after the operation, during which time they are sleeping. On being awakened then, they are usually in condition to be taken home. Whether the patient may appear nervous or phlegmatic before operation, Hurd feels confident that, with the use of this method, there will be no symptoms attributable to anesthetic intoxication, and the fatalities with the proper use of the local anesthetic will be much reduced.

HEART DISEASE AMONG CHILDREN

While it is a demonstrated fact that the mortality from infectious diseases has been greatly diminished in the last decade or two, constitutional affections, especially organic heart diseases, kidney affections and others, have increased in severity and fatality. Discussing the problem of heart diseases, the *Statistical Bulletin* of the Metropolitan Life Insurance Company (August, 1922) refers to the emphasis which, at the present time, is being laid upon the prevention of heart disease. Efforts along this line, the *Bulletin* states, may well be directed with due consideration of the fact that, while cardiac diseases usually *cause death* in later life, they are often *acquired* during childhood. In the case of the New York school children, it was brought out that in large numbers of the cases there were significant histories of tonsillitis, rheumatism, diphtheria and dental diseases, and that measles, pneumonia, whooping cough, scarlet fever and chorea had also been more or less frequently present as antecedents. It is known also that, in many of these cases, the cardiac impairment followed closely upon the attack of infectious disease. It is thus obvious that intelligent care of children who have had infectious diseases is very important in connection with the prevention of heart disease. The early diagnosis of rheumatism is especially important; so is the increased practice of tonsillectomy; so, also, is better care of the teeth.

From the standpoint of mortality alone, heart disease is a very important item among children. It is interesting to compare the loss of life due to various cardiac impairments among wage-earners' children with that due to maladies generally recognized as "children's diseases". At ages one to four, for example, heart disease causes approximately one-third as many deaths as does scarlet fever or one-quarter as many as whooping cough. At ages five to nine, these organic heart troubles cause more deaths than do any of the socalled children's diseases with the single exception of diphtheria. In this age group, heart disease has a much higher death rate than has pulmonary tuberculosis. In the latest period of childhood, 10 to 14 years, the mortality from cardiac conditions is heavier than that from the four principal diseases of childhood combined. Tuberculosis is then the only condition which leads heart disease as a cause of death.

Cardiac impairments rank high as a "children's diseases". We must not allow their relatively higher death rates in middle adult life and in old age to obscure their importance in childhood.

RADIUM THERAPY

While, for years since the discovery of radium, recourse to this remedy for the treatment of malignant disease was had only in advanced and absolutely inoperable cases, such remarkably beneficial action was observed that the question was raised whether the percentage of clinical cures from radium in operable cases would not exceed the percentage of cures where the knife is the sole remedial agent. It also was natural to inquire whether these operable cases would not respond even better to timely radium treatment than do the far-advanced ones and whether, in this manner, the horribly destructive operations necessary to eradicate all possible "seeds" for further dissemination could not be eliminated.

The great disadvantage of the surgical treatment of cancer, even if this is done very thoroughly, is not only the likelihood of recurrence but also the high mortality rate following such operations. For this reason, surgeons who have observed the effect of radium when properly used have expressed the opinion that, with increasing knowledge of this important agent, the knife will be used less and less for the removal or cure of cancer.

In expressing these opinions, Dr. C. W. Hanford, of Chicago (*Med. Rev. of Rev.*, April, 1922), does not wish to have it inferred that the knife in the hands of a competent surgeon is to be relegated to obscurity. On the contrary, it has a place and a very distinct one in dealing with malignancy. It is, as Hanford expresses it, one of a trinity of means, of which radium and x-ray are the other two.

Doctor Hanford criticizes the self sufficient belief of some surgeons that their work is ended after they have used the knife. Operation, indeed, is only one of several steps in the elimination of cancer in the individual. Before operation, it should be our aim to close the mouths of the lymph channels, that the likelihood of metastases be minimized. We have become convinced that radium acts in this manner. Therefore, it is our practice to apply radium in the periphery of the mass as well as in the substance of the same, a week or ten days prior to excision of the diseased area. Besides this, it should be applied again after healing is well on the road to completion. This again is to be followed by weekly treatments of x-ray in the hands of a competent operator. Judging from clinical evidence so far collected, the time is not far distant when radium and x-ray will supplant the knife in breast tumors, prostatic cancer and gland metastases. But, in using radium or x-ray, there must be no indefiniteness; for, in order to accomplish the desired end, such a shock must be given the cancer cell that it will be absolutely destroyed at the first two or three treatments.

It has been found that all living tissue is affected by radium and x-ray in varying degrees according to rays used and the quantity or dose. Under certain circumstances, exposure will be followed by redness, or inflammations; under others, burns may result from exposure. With unduly large doses, necrosis is produced. This naturally calls for great nicety in dosage.

The disappearance of inflammations and also of tumors on which radium has acted is dependent on two phenomena: (1) The destruction of radiation of the anatomical elements modified by inflammation and by the progress of the tumor. (2) The absorption of degenerated tissue by the phagocytes and its replacement by sclerotic tissue. The dose that will destroy tumor cells will have a stimulating effect on connective tissue cells and it is followed by an ultimate fibrous change. Because of this difference of effect on various cells, the term "selective action" of radium is often used. This term is not definite and, besides, conveys the impression that radium picks out cancer cells on which to work its destructive action. Radium affects every cell with which it comes into contact, but some are more resistant than others. The young embryonic cell is much more easily affected than the mature cell. Therefore, instead of the term "selective action," a more comprehensive understanding will be had if we use the term "selective absorption" of the tissues by radiation.

Whenever radium is used to a tumor mass, after the lapse of from four to seven days, we have (1) a period of inflammation and congestion. The arterioles and small arteries show marked endarteritis. (2) This period lasts from two to three weeks and is followed by a period of detritus and a resulting lymphatic engorgement. (3) The last of the changes is a decline of congestion and the development of fibroblasts and, later, the formation of connective tissue.

Theoretically, this change in the character of tissue should preclude any chance of recurrence of malignancy, but recurrences do appear. Whether this is due to excessive tenacity to life of some isolated cells that have resisted the action of the rays that have killed the majority of the malignant family, or whether the original cancer has been wiped out and the so-called recurrence is an entirely new development, are questions that Doctor Hanford is not prepared to answer, nor, so far, has any one answered them satisfactorily.

While the numerous successes credited to radium would naturally suggest the question whether radium is a cure for cancer, Doctor Hanford insists that the answer must be qualified. Where the disease affects a region where lymph glands are many, as in the tongue and cheek, the end results from the use of radium or of anything else are very poor. In these cases, the method can be considered merely palliative. Occasionally, it seems to have no beneficial effect whatever. Still, in a very few cases, a clinical cure resulted and Doctor Hanford has reason to believe that this was due to improved technic.

Although initial lesions are frequently healed under radium treatment, the problem of metastases is still a serious one and necessitates great care in prognosis. Radium treatment has shown very beautiful results in carcinoma of the cervix uteri, of the breast, of the bladder, and even of the esophagus. In cancer of the rectum, the results following radium alone are not all that could be desired. Still, it has a distinct palliative effect and may be used together with the surgeon's aid.

In cancer of the prostate, Doctor Hanford feels that the application of radium accomplishes as much as, and probably more than, surgery. There are cases where surgery and radium should be combined.

In hyperthyroidism, radium is now established as a remedial agent of decided merit.

In persistent uterine hemorrhage, particularly in that occurring just before or at the menopause, radium treatment has been so successful

that it may be considered as almost, if not quite, a specific.

The good effect of radium in superficial skin lesions, both malignant and benign, is too well known to require more than passing comment. The epitheliomas, warts, nævi, etc., were among the first treated by Wickham and De Grais in the early days of radium therapy and it was because of the wonderful action of the then new therapeutic agent in superficial lesions that it became at once popular.

EFFECT OF RADIUM ON LYMPHOCYTES

In the paper on some clinical observations on radium therapy, by Dr. C. W. Hanford, of Chicago (*Med. Rev. of Rev., April 1922*), from which the foregoing abstract was taken, there appeared several interesting paragraphs on the effect of radium on lymphocytes which we reproduce herewith.

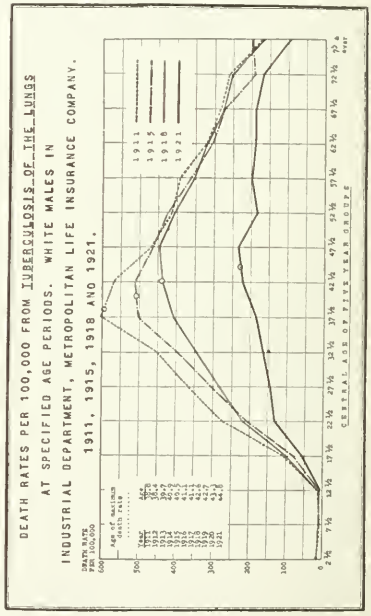
All pathologists have noted that the lymphocytes circulating in the blood are most readily influenced by radium and Roentgen rays, while all other types of leukocytes and erythrocytes possess a greater resistance. Levin found that the normal blood of the turtle contains from three to ten percent of polymorphonuclear leukocytes and from eighty-seven to ninety percent of lymphocytes. After radiation, the relative amounts of the two types of white cells in the blood of the turtle change, so that the polymorphonuclears appear in about 80 percent as against 20 percent of the lymphocytes.

The specific radio sensibility of lymphocytes, according to Levin, explains the action of radium and Roentgen rays on normal and diseased tissue. The intense radiation of any region of the organism and not necessarily the direct raying of lymphoid organs, is followed by a complete or partial destruction of the cellular elements of lymphoid tissues. Therefore, in Hodgkin's disease under the application of radium after the period of inflammation and engorgement has passed, we have a proliferative endarteritis, followed by connective tissue formation.

There is another condition of lymphoid hyperplasia, which should be mentioned at this time, viz.: Status thymicolymphaticus. In this condition, the application of radium over the thymus gland is followed by very happy results. Only the gamma rays are used; therefore the radium applicator is heavy screened and it is also elevated 2 cm. above the surface of the skin.

RECENT CHANGES IN AGE-TYPE OF TUBERCULOSIS

Discussing the fact that, in recent years, a decided lowering in the mortality from tuberculosis could be recorded and that, furthermore, the age period at which death occurred was advanced, the *Statistical Bulletin* of the Metropolitan Life Insurance Company (August, 1922) declares that the evidence at hand for white male wage-earners insured in the Industrial Department of the Metropolitan Life Insurance Company during the past decade


DEATH RATES PER 100,000 FROM TUBERCULOSIS OF THE LUNGS
AT SPECIFIED AGE PERIODS. WHITE MALES IN
INDUSTRIAL DEPARTMENT, METROPOLITAN LIFE INSURANCE COMPANY.
1911, 1915, 1918 AND 1921.
1911
1915
1918
1921
CENTRAL AGE OF FIVE YEAR GROUPS

shows definitely that the type of age incidence of pulmonary tuberculosis has undergone profound alteration. Not only has the maximum death rate among white male wage-earners been depressed 59 percent in eleven years, but the age at which this maximum death rate occurs has moved forward from 38.8 years to 44.8 years, a difference of six years. Instead of the sharply peaked curve of 1911, there was in 1921 a scarcely distinguishable peak at the age group 40 to 44 years, with a decidedly horizontal tendency of the line beyond 45 years. Such changes in the contour of the curve in so short a period as ten years are very encouraging.

The forward movement of the point of maximum mortality has definite social significance. In 1911, the maximum death rate occurred at age 38.8 years; by 1915, it had advanced to 40.5 years; in 1918, it was located at 42.6 years and, in 1921, at 44.8 years. This is an advance of about one-half year of age for each calendar year. At the age ranges where the responsibility of males for the care of families of young children is greatest, the total number of deaths has been cut more than one-half. Further, the age of maximum burden has been advanced in life to a point where the father has fewer young children incapable of self-support. There is, therefore, a lessening of the strain upon public and private relief agencies, and a certainty that many thousands of children have today the benefit of home care which they would not have had if mortality conditions of ten years ago were in current effect.

The most encouraging fact in the vital statistics of these insured wage-earners today is, that the changes in the age contour of the tuberculosis curve are continuing. There seems to be no immediate check in this wholesome tendency of tuberculosis to become less and less a menace to the American family. Those measures which have in one decade succeeded in saving so many thousands of lives in the families of the American and Canadian wage-working population, should be continued with redoubled vigor. The conservation force of public and private agencies should be directed at an ever-increasing fall in the death rate of a disease which makes such heavy inroads upon family welfare, and which is so readily controllable.

AUTOTHERAPY

In communication published in the *New York Medical Journal* for February 1, 1922, Dr. Thomas M. Stewart, of Cincinnati, Ohio, refers to the method of autotherapy through which toxic substances, obtained from sputum, nasal, oral or other discharges of the patient, are suitably prepared according to the methods devised by Dr. Chas. H. Duncan, of New York, and administered by subcutaneous or intravenous injection.

Such diseases as are amenable to cure by autotherapy respond to the treatment due to the entrance, by injection under the skin, of the properly prepared unmodified toxic substances, and, when this occurs, the power of the patient's own blood serum is raised, the activity of the leucocytes greatly stimulated and, as a result, the specific antibodies needed to start this natural cure are developed in the blood.

Doctor Stewart cites the experiences of several physicians, as published in German and French medical journals, according to which autotherapy, in which the patient's blood was utilized, produced very excellent results in pernicious anemia, in pellagra and in other affections. He himself refers to a case of erysipelas in which he obtained serum from the blisters on the face and head of the patient and from which he prepared a filtrate. One subcutaneous injection in the arm stopped the progress and a second injection, the next day, caused a perceptible retrogression to begin. Treatments every four days, continued for two weeks, cleared up the condition.

Doctor Stewart also refers to a chronic subglottic laryngitis in a minister, where potassium iodide, together with local treatment, had been without result. The filtrate was made from the early-morning sputum and injections of a 1:1000 solution were made every four days. At the end of the seventh treatment, the patient could run the scale and use his voice naturally.

Arthritis with its painful joints, stiff muscles and aches in various parts of the body, yields to this treatment better than to any other in Dr. Stewart's experience. In these cases, the blood is the basis for preparing the curative solution for intravenous use. Briefly, a small amount of blood is taken from a vein; one mil (Cc.) will do. It is diluted with nine mils of double distilled water and incubated twenty-four hours. A high dilution is made of a strength of one in a million to one in a billion in double-stilled water, the last dilution being made up in sterile normal saline solution. This is given intravenously. The treatments may have to be given up to the number of ten or more, blood being taken the day before each treatment. This entails considerable detailed work and sterilization, which are drudgery unless one is properly equipped and has trained assistants at command.

The blood is a perfect antigen, concludes Doctor Stewart, (antibody producer or antidotal agent) and, when properly prepared, the patient's own blood will cause the liberation of the specific antibodies to antagonize the diseased influence in the patient. This is the underlying principle in spontaneous cures and is the factor by which Nature confers for a lifetime an efficient immunity against renewal or, exceptionally, an increased susceptibility (anaphylaxis) to the same or similar diseases.

Among the Books

HERTZLER: "THE PERITONEUM"

The Peritoneum. By Arthur E. Hertzler, M.D., F.A.C.S. Two volumes. 870 Pages. 230 Illustrations. St. Louis: C. V. Mosby Company. Price $10.00.

This is a comprehensive study of the peritoneum and its diseases. Volume I deals with the anatomy, physiology, histology, circulation, inflammations and adhesions.

Volume II treats very fully of the various forms of peritonitis and its relation to surgery; of appendicitis and its complications. The last chapter deals with tumors of the peritoneum. The author is Associate Professor of Surgery, University of Kansas. Much of the practical work upon which the book is based was done at the Halstead Hospital and at the University of Illinois. The book is clearly written, complete, and up-to-date. An extensive bibliography has been added.

BULKLEY: "CANCER"

Cancer and Its Non Surgical Treatment. By L. Duncan Bulkley, A. M., M. D. New York, William Wood and Company. 1921. Price $6.00.

The aim of this book, Doctor Bulkley informs us, has been, to establish on firm scientific grounds the proofs of the constitutional nature of cancer, now so widely accepted, and to illustrate freely the value of this thesis by successful cases.

"In selecting cases for report, the effort has been, to select and present them in such a manner as would give a satisfactory presentation of the disease carcinosis, as its results or products affect various portions of the human economy, to which products, or local manifestations, the name of cancer is usually given. All this is in opposition to the more recent views as to its purely local nature, and to the idea that excision or removal in any way of the local lesions of the disease can possibly effect a radical cure of cancer, which experience, sustained by mortality statistics, has shown to be no longer tenable.

"It is confidently asserted that, when the principles and practice here laid down are fully understood, widely accepted, and generally acted upon, there will be shown a reduction in the mortality of cancer which will be conclusive and gratifying."

Nevertheless, the author cautions against entering upon the medical treatment lightly or without due consideration, for, although, when rightly carried out long enough, the results obtained far exceed any that can be otherwise secured; on the other hand a lax, or careless, or too brief employment of the measures enjoined can only end in disappointment.

Doctor Bulkley has long been known to the readers of medical journals as a close student of the difficult cancer problem. While diseases produced by living foreign entities, such as bacteria or fungi or protozoa, have been studied to great advantage; while some (smallpox, leprosy, yellow fever, the plague, for instance) have been curtailed in their distribution and their danger has been greatly diminished; while, furthermore, the mortality of most of these diseases, notably of tuberculosis, has been greatly lessened, cancer constitutes a problem that, seemingly, is becoming more difficult and further removed from solution as time goes on.

Doctor Bulkley asserts that this is due to a mistaken conception of the nature of cancer through which this is viewed, especially by surgeons, as a local affection which must be eradicated by operative measures. The faulty logic of this position is made evident by the fact that far-reaching and destructive operations are done in which the entire lymph glands well into the healthy tissue are removed at operation—for fear of expansion and dissemination of the disease.

Surgery, then, has not enabled us either to recognize the nature of cancer or to elaborate a satisfactory curative treatment. Then, with all the advantages that have accrued in recent years through the employment of x-ray and radium (see, for instance, p. 778 of this issue), this mode of treatment also has not given us light upon the nature of the disease, nor has it been possible to discover any information as to its prevention.

Under these circumstances, it appears to the Reviewer that the definite assurance of Doctor Bulkley should receive a respectful hearing when he declares (as he has done in past years in several books and in numerous medical journal articles) that the nature and character of

cancer can be recognized through methods not as yet employed generally. Moreover, the corollary, namely, a successful treatment, has followed in Doctor Bulkley's clinical experience and he actually has accomplished a cure in numerous cases which has been lasting for a sufficient number of years to command our attention.

Doctor Bulkley's book, which is before us, is written in the clear, lucid and logical style to which we are accustomed from him. The Reviewer does not feel competent to pass on the correctness or incorrectness of the author's contentions. He has long been impressed with Doctor Bulkley's teachings and is convinced that the study of this present volume will enable the general practitioner to recognize early "carcinosis", or cancer disease, at a time when medical and constitutional treatment may yet avail and before the first letter of *"finis"* has to be traced because resort to surgical intervention has become necessary.

STITT: "TROPICAL DISEASES"

The Diagnostics and Treatment of Tropical Diseases. By E. R. Stitt, A.B., Ph. G., M.D. Sc.D., LL.D. Fourth Edition—Revised. With 159 Illustrations. Philadelphia: P. Blakiston's Son & Co. 1922.

It is a pleasing task to announce the appearance of a new edition of Stitt's "Diagnostics and Treatment of Tropical Diseases" which follows close upon the last one.

This particular treatise of the tropical diseases is our standby in the editorial office. It is consulted frequently and always with satisfaction. We can recommend it cordially.

GROVER: "HIGH FREQUENCY"

High Frequency Practice For Practitioners and Students. By Burton Baker Grover, M. D. Illustrated with Ninety-Five Engravings. Kansas City: The Electron Press. 1922.

In the application of high-frequency currents to diseased or perverted conditions of the human organism, the author informs us, it has been his endeavor to give a physiological reason for their use. In a few instances, he admits, their use has been recommended when, without known pathology, they have been proven beneficial.

Just as the employment of drugs should be based upon their physiological indications, so, the author asserts, should be every application of electricity. Nothing could be more destructive to rational therapeutics, he avers, than for a physician to let himself be carried away by very interesting results secured from the application of high-frequency currents. Electrical modalities assist in rounding out the physician's armamentarium; still, it would be a mistake to conceive the idea that the entire field of medicine revolves about the art of physiotherapy.

Dr. Grover has presented in his little book many interesting discussions which appeal to us. He deals in successive chapters with, High-Frequency Currents; Medical Diathermy; Surgical Diathermy; Blood Pressure; Pain; High-Frequency Practice; Diseases of the Eye. The text proper is followed by an Appendix containing a questionnaire which permits the physician to quiz himself. It also contains, in the form of an Appendix "B", the author's presidential address, delivered at the third annual meeting of the Western Electrotherapeutic Association, held at Kansas City, Mo., in 1921. A glossary of terms used in electrotherapy and an index complete the text.

RAMSAY: "CLINICAL OPHTHALMOLOGY"

Clinical Ophthalmology for the General Practitioner. By A. Maitland Ramsay, M.D. With Foreword by Sir James MacKenzie, M.D., F.R.S. London: Oxford University Press. 1920.

The author of this book spent ten years in general practice before he specialized on the eye; and he states that this experience has greatly influenced his outlook—a statement which we can readily believe. This Reviewer has always held that a period of general practice, say, from five to ten years, should precede the adoption of any specialty, for reasons too obvious to need repeating. This work was written for the busy practitioner and especially for the country doctor. The writer's aim has been, to indicate as far as possible the cases which the general practitioner can treat safely on his own responsibility, and those in which it is desirable to obtain consultation with an expert.

The Foreword by Sir James MacKenzie is a very interesting and a very human document, describing his experience with textbooks, an experience which will strike a responsive chord in the memories of his readers. His outline sketch of the young doctor's method of writing a textbook is a happy touch, and true to life.

THE PRACTICAL MEDICINE SERIES

This first volume of the 1922 series of the "Practical Medicine Series" covers an immense

field of the various departments of the literature which has been considered, being the following: Infectious Diseases and Endocrinology (edited by George H. Weaver, M. D.); Diseases of the Chest, Excepting the Heart (Lawrason Brown, M. D.), Diseases of the Blood and Blood-Making Organs; Diseases of the Blood-Vessels, Heart and Kidney (Robert B. Preble, A. M., M. D.); Diseases of the Digestive System and Metabolism (Bertram W. Sippy, M. D., and Ralph C. Brown, B. S., M. D.).

There are 693 pages of text and, in view of the fact that all discussions are in abstract form, it can be readily understood that the information presented is wide and copious.

We consider the "Practical Medicine Series" as one of the best means at the command of the physician to keep up with the progress in medicine and surgery as well as in the specialties.

The work is now well established and universally known. It will be recalled that it appears in eight annual volumes, each series being sold at the price of $15.00, while individual volumes can be bought at moderate cost.

PARTRIDGE: "BACTERIOLOGY"

Aids to Bacteriology. By William Partridge, F. I. C. Fourth Edition. New York: William Wood & Co. 1922. Price $1.75.

It is interesting to read in the preface of this fourth edition of Partridge's well known "Aids to Bacteriology" that, in the course of years, the evidence for and against the causation of a disease or other manifestation by a particular organism is very thoroughly sifted on such excellent lines that it is now very rare for one to be discredited. This much for the frequent assertion on the part of irregulars that the bacterial, protozoal, etc., origin of many diseases is based on a mistaken theory and that it has not been verified by experience.

The little volume, which forms one of the "Students' Aids Series," published by Baillière, Tindall and Cox, London, is handy but yet sufficiently complete to serve not only the student but also the physician. It even contains more information than the latter need utilize unless he is equipped to do his own laboratory work. The book strikes us as being very useful.

THOMAS: "PRACTICE OF MEDICINE"

The Eclectic Practice of Medicine. By Rolla L. Thomas, M. S., M. D. Illustrated. Fourth Edition. Cincinnati: John K. Scudder. 1922. Price $8.00.

In the course of the last ten years or more, we have come to depend upon so many remedial agents that were originally introduced into the materia medica by Eclectic physicians, that the appearance of a new edition of Thomas' Eclectic Practice of Medicine aroused pleased consideration. While the bulk of the large volume (996 pages) is given over to the discussion (including treatment) of the various diseases, we find, in the closing chapter, the indications for remedies as they are taught by the Eclectic school and which are considered by that school to be specific. In other words, according to the preface "when once the relation of drug action to disease conditions is found, it is found for all times. An agent that will correct a specific condition today, will correct the same condition tomorrow, next year, or a hundred years hence. Therefore, many of the remedies used twenty-five, thirty or fifty years ago are used today."

To the Reviewer, the brief chapter on indications for remedies is particularly interesting; this in view of the fact that he has, for years, consulted such Eclectic textbooks as Ellingwood's, also King's Dispensatory and the enlightening publications of Lloyd Brothers, with much pleasure and benefit.

"THE INTERNATIONAL JEW"

Aspects of Jewish Power in the United States. Vol. IV of the International Jew. A Fourth selection of Articles from The Dearborn Independent. Published by The Dearborn Publishing Co., Dearborn, Mich. May, 1922.

The Dearborn Publishing Company sent us Vol. IV of "The International Jew, the World's Foremost Problem" which contains a further selection of articles having appeared in *The Dearborn Independent*. The special title of this fourth volume is "Aspects of Jewish Power in the United States" and some of the subheads are: "How Jews Gained American Liquor Control"; "Gigantic Jewish Liquor Trust and Its Career"; "The Jewish Element in Bootlegging Evil"; "What Jews Attempted Where they Had Power"; "The Economic Plans of International Jews."

The first volume of the series carried the general title. The second dealt with Jewish activities in the United States; the third with Jewish influences in American life.

Those who are interested in Mr. Ford's efforts to ventilate the socalled Jewish problem (efforts that have been designated as "Jew-baiting") can find here much material that, it must be said, presents only one side of the question.

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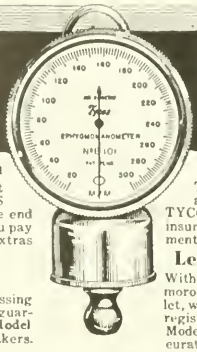

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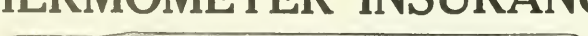

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Enclosed is $6.50, for which you may send me 1 dozen 3CM5151, Betzco guaranteed and tested Clinical Thermometers, which I may return if not well satisfied.

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News Notes Department

New test outfit. To be useful to the average busy practitioner, who has neither the time nor inclination for complexities, a urinary test outfit must be reduced to the limit of simplicity, as to the number of items, their construction and method of applying. The needed diagnostic facts must be quickly and lucidly disclosed, yet without sacrificing accuracy, as to results.

The Frank S. Betz Co., of Hammond, Ind., in this copy of our journal and elsewhere, are calling attention to an outfit of theirs, which without being elaborate appears to be complete, including reagents for the tests ordinarily made. The apparatus, reagents and all, come in an enameled steel cabinet, with drawer at bottom. For a full description and price see our advertising pages.

The motor car. Doctors in common with all car owners are interested in protective measures against the growing army of tire thieves. The spare tire is often purloined. Yet it is almost necessary to carry one. And tires cost money.

Again necessity becomes the mother of invention. Motorists now have at their disposal what is known as the Regal Keyless Lock, which it is said is practically an insurance against loss of tires. The lock cannot be picked or otherwise opened except by one who knows the combination. It is made by the Regal Keyless Lock Co., 1808 North Clark St., Chicago.

Disinfectant. Now that preventative medicine has come into so nething like the measure of esteem which it deserves, house disinfection is practiced more generally than formerly. It can hardly as yet be said to be popular but one notices from the drugstore sales of expedients to this end, and by other signs, that a fairly large proportion of house-holders are alive to the need of keeping their premises sanitary.

Many use Platt's Chlorides, which is one of the oldest and best known disinfectants. Samples may be had by writing the Henry B. Platt Co., 48 Cliff St., New York City.

It is not enough to consider the daily intake of fats, proteins and starches when advising a diet that will satisfactorily sustain life and, further than that, maintain a state of physical health. There are minerals that are quite as vital, although in considering the matter of diet they are never if ever stressed. How many, for

Ovo-Thyroid Compound in Gynecology

PHYSIOLOGISTS have come to realize that the menstrual phenomenon is controlled not by the ovaries alone, but by the thyroid and pituitary as well. Pluriglandular therapy (ovarian, thyroid and pituitary) has become the rule for many gynecologists in the treatment of amenorrhea and dysmenorrhea. A wide clinical experience has demonstrated that Ovo-Thyroid Co. (Mayson) a potent combination of these three synergistic glands, is the most effective remedy for AMENORRHEA, DYSMENORRHEA, FRIGIDITY, OBESITY, HYSTERIA, MELANCHOLIA, etc. It has been used with success in Sterility due to ovarian insufficiency.

Try Ovo-Thyroid Compound (Mayson) in your next case of Menstrual or Menopausal dysfunction. You'll understand why so many gynecologists are steady prescribers of this Perfected Pluriglandular Formula.

Packages of 100 tablets in sanitary glass vials, $3.00

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THEN comes the choice of an alternative which will provide the most in satisfaction without harm.

Doctors who know the wholesomeness of

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direct their patients to use this beverage instead of coffee, as no harm can result.

The rich, full-bodied flavor of Postum carries the comfort of a hot drink much resembling coffee in taste, but with no ill effects.

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There is no caffeine, or any other ingredient deleterious to children or grown-ups, in Postum.

A full-sized tin of Instant Postum, together with literature, will be sent to any physician unacquainted with its availability upon request written on office stationery.

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instance, know that, in order to maintain a state of health, the person must consume 1 gram of calcium for every 100 grams of protein?

The person, as we meet him or her in the large cities, especially if a regular patron of the restaurants, is not apt to receive this proportion of the salt. It is so often absent or deficient in the finely milled foods so generally served. Hence, the necessity of giving such a preparation as Fellow's Syrup of Hypophosphites, for example, which supplies in spoonful doses calcium and other essential salts.

Years ago pain was considered salutory. People were exhorted to endure it, rather than attempt to avoid it. In fact, there were laws in the old days imposing heavy penalties on persons who contrived to relieve the sufferer. Even within memory of most of us the use of chloroform or opiates in labor, as means of carrying the mother through the painful ordeal, were viewed with holy horror.

But happily we have become more sensible. No doctor withholds an anodyne from a patient. He only chooses it circumspectly, prefers the coaltar anodynes not singly but combined, as in "Phenalgin, in which the aim is to avoid the depression common to these agents. Those who have never tried Phenalgin should write to Geo. C. Cook & Co., New York City, for a sample.

Empire bandage. The elastic stocking was once used, to the exclusion of all else, for obtaining the needed pressure in varicose leg conditions. Today, for this purpose, most doctors are prescribing an elastic bandage, such as the Empire. This is less expensive and can be put on immediately; the bother and delay of getting a stocking of proper size for the leg under treatment are avoided. One or two rolls of bandage in the office, and the doctor is ready for any case.

The Empire bandage while very elastic is made without rubber. It lasts longer than the ordinary article and may be washed occasionally, when soiled. With it one can secure just the degree of pressure wanted, and maintain it.

Cinchophen. The salicylates have had their day. One by one, those who have been prescribing them in years past are turning to Cinchophen. And they are wise to do so. For clearly Cinchophen is the better drug in many cases of acute rheumatism and other painful conditions.

Precisely how it acts within the body is still a question. But we do know that neither the salicylates nor any other drug so sharply increases the elimination of uric acid. A decided increase is obvious in the voidings and can be demonstrated easily by urine tests.

Simultaneously, in a rheumatic person, the subjective symptoms disappear or if persistent become less troublesome. A pleasing fact to note is that Cinchophen is less irritating to the kidneys than the salicylates. Albuminuria

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require no technique and obtain action and results equal or superior to arsphenamine intravenously injected.

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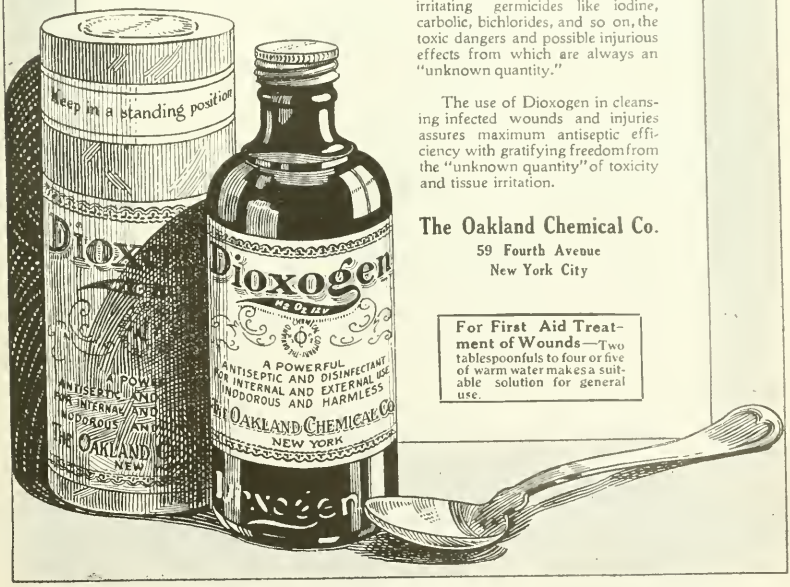
Antiseptic Efficiency Without the "Unknown Quantity"

NEVER was the necessity for prompt and effective antisepsis in the care of emergency or infected wounds, so widely and thoroughly recognized as it is today. As a logical consequence, never was there a time when the value of Dioxogen as an all round antiseptic was more evident.

This is easy to understand on the part of the many medical men who stop to realize that the germicidal efficiency and tissue healing properties of Dioxogen are due entirely to the **pure, active oxygen** it is able to carry directly to the wound or place required. Naturally they have come to prefer Dioxogen to those poisonous and essentially irritating germicides like iodine, carbolic, bichlorides, and so on, the toxic dangers and possible injurious effects from which are always an "unknown quantity."

The use of Dioxogen in cleansing infected wounds and injuries assures maximum antiseptic efficiency with gratifying freedom from the "unknown quantity" of toxicity and tissue irritation.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Dioxogen
A POWERFUL ANTISEPTIC AND DISINFECTANT FOR INTERNAL AND EXTERNAL USE INODOROUS AND HARMLESS
THE OAKLAND CHEMICAL CO
NEW YORK

The Oakland Chemical Co.
59 Fourth Avenue
New York City

For First Aid Treatment of Wounds—Two tablespoonfuls to four or five of warm water makes a suitable solution for general use.

occurs but seldom; when it does it is not nearly so severe.

The Abbott Laboratories, Chicago, announce lower prices for Cinchophen, which is well, seeing that the drug is so useful. The same firm is also making Neocinchophen.

The bromides will not soon be forgotten, that is obvious. Habit is strong and the bromides have shown themselves effective. So that, although a number of worthy substitutes have been suggested with the view to avoiding the unpleasant collateral effects common to the ordinary salts, they are being prescribed in great quantities. Users hold to them, unmindful of the innovations.

Imagine the bromides while still retaining their effectiveness, deleted of their objections, to the end that they no longer irritate the stomach! And this very thing, we are told, is possible and has actually been done. The preparation known as Bromidia may be administered for a long, long time, it is said, without upsetting the stomach, whereas with the ordinary salts, gastric distress is complained of by the majority of patients.

Battle & Co., St. Louis, Mo., offer this preparation and invite inquiry.

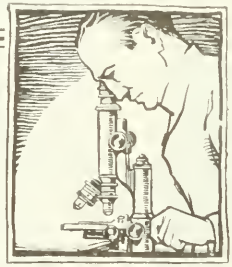
Few dentists could be found we surmise, who are strangers to Waite's Local Anesthetic. It has been in use for thirty years for nerve blocking and otherwise, as an aid to work on the teeth and jaws. A great many physicians use it also, finding that it serves very nicely for devious minor operations.

The anesthetic contains 1% of cocaine in solution, along with baptisia, glycerine, eucalyptus, menthol, etc. In lieu of cocaine, it may be had with procaine, which is acknowledged to be very much safer and for that reason is preferred by most careful operators. The doctor may have it either in ampules or in bottles containing one and two ounces respectively. To those who are willing to try it out in a surgical case or two the Antidolar Mfg. Co., 12 Main St., Springville, N. Y., will gladly send a package of the ampules.

Of all stubborn ailments that one can recall eczema is certainly not the least. Every doctor, if only a single year in practice, has been called to meet it, at times to conquer it, but more often to claim no particular success if indeed not acknowledging complete failure to deal with it.

There are remedies, aplenty of them, recommended in the standard texts. But taken as they come, they can scarcely be accredited with anything like consistency of action or certainty of results. The prescriber, therefore, is forced to cast about, so to speak, for some satisfactory remedy, to try one after another, to experiment with many, hoping all the while for success in the case in hand.

A remedy-combination of value, according to users, is that offered by the Chicago Pharmacal Co., under the name of Zematol. This is an



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KELLOGG'S BRAN

should not be confused with common brans which become irksome to eat

Patients eat Kellogg's Bran readily because it is highly palatable. It may be prescribed with confident expectations of results because it is ALL BRAN—cooked, then shredded and krumbled—and really a delight served as a cereal, sprinkled over the patient's favorite cereal, or made up into countless bakery products. Kellogg's is also often served in gravies, soups, etc., its nut-like flavor adding much to food.

Kellogg's Bran has won the favor of hundreds of physicians because of its taste appeal aside from its natural regulatory value. It is a revelation compared with common brans. We ask that you try Kellogg's Bran to be personally assured how it induces better peristaltic action by adding indigestible residue in the bowel tract. Eaten regularly each day—at least two tablespoonfuls (in chronic, old-age or bed-ridden cases with each meal)—relief may be confidently looked for.

Attention is also called to the analysis of Kellogg's Bran in this advertisement.

An Analysis of *Kellogg's* BRAN cooked and krumbled

Aside from its regulatory value, Kellogg's Bran commands attention as one of the most valuable foods known. Read this analysis:

Moisture	2.50
MINERAL SALTS	**8.41**
Protein	15.8
Fat	2.8
Crude Fiber	8.9
Carbo-hydrates	61.6
Calories (per pound)	1480.46

We would be pleased to send you a large package of Kellogg's Bran with our compliment. Kindly mail a request card today to Kellogg Toasted Corn Flake Co., Battle Creek, Mich.

Kellogg's *Look for this signature W. K. Kellogg*

the original BRAN - *cooked and krumbled*

ointment for topical application. It is said to relieve the itching which so frequently is one of the troublesome symptoms of this skin affection, and in indolent cases to stimulate healing.

The saline purge serves a legitimate purpose, Sal Hepatica, for example. It serves effectively as a rule for ridding the bowel of offending food residues, impacted masses, ptomaine-like ingesta, in costive or constipated conditions, in other words. And the civilized world, with its civilized mode of eating, differing as it does in many respects from that of our forebears, is full of people so affected.

And this does not define the need for it. For even with a daily stool there may be slowed propulsion through the bowel (stasis) with food residues collected somewhere along the colon. Such a condition is frequently disclosed by radiography after a bismuth meal. An occasional cleaning out with such a preparation as Sal Hepatica, therefore, is well advised for most people.

For quicker results than are usually possible from drugs given by mouth, advocates of intravenous medication are urging others to follow their example. And many are. Probably never as at the present time were there so many physicians using the hypodermic syringe for administration of drugs.

A recent writer says he has given a thousand or more injections with uniformly good results. He especially lauds the intravenous use of iron and arsenic, reporting several cases. At times he alternated with sodium iodide, in such conditions as pustular acne, anemia, etc. Such treatment, says the writer, will raise the hemoglobin percentage and do it promptly.

Geo. A. Breon & Co., of Kansas City, have a large and excellent assortment of ampule solutions, ready to inject. They are true to label and absolutely reliable according to those who are using them largely in their practice.

One doctor to another. During a consultation recently, a physician had occasion to recommend Dionol to his colleague on the case. His colleague, it transpired, had never heard of it.

"By all means try it," enjoined this physician. "I used it, without bothering to inquire lengthily into its action, in several cases. What I wanted were results. And I certainly obtained them with Dionol. I advise you strongly to try it. When you have done so, I'm sure you will thank me for having called your attention to it."

Some of our readers have probably never used it, but may feel inclined to do so. Inquiries should be addressed to the Dionol Company, Detroit, Mich.

Goitre is attributed to iodine deficiency. If the store in the thyroid gland falls below 0.1% a goitrous growth is apt to form. Little is needed but that little is vital. It is interesting

The Management of an Infant's Diet

In extreme emaciation, which is a characteristic symptom of conditions commonly known as

Malnutrition, Marasmus or Atrophy

it is difficult to give fat in sufficient amounts to satisfy the nutritive needs; therefore, it is necessary to meet this emergency by substituting some other energy-giving food element. Carbohydrates in the form of maltose and dextrins in the proportion that is found in

Mellin's Food

are especially adapted to the requirements, for such carbohydrates are readily assimilated and at once furnish heat and energy so greatly needed by these poorly nourished infants.

The method of preparing the diet and suggestions for meeting individual conditions sent to physicians upon request.

Mellin's Food Company. **Boston, Mass.**

Why Golden Key Milk Tastes Better

There's a reason why Golden Key Milk *tastes better.*
Rich, creamy milk from some of the finest dairy farms in Southern Wisconsin is evaporated, sterilized and sealed in air-tight cans by our special process. Nothing is added, and nothing removed but half the water.

In a test recently conducted, 24 families were given numbered cans of Golden Key and four other leading brands of evaporated milk, with the labels removed. *Eighteen out of the 24 chose Golden Key for first place on taste, color and appearance.*

The chances are that you will like Golden Key better than any milk you have ever used. Because of its purity you will be glad to recommend it.

Look for the Key on the Can

E-422A

GOLDEN KEY MILK

Pure, Rich Milk – *Concentrated!*

to note that goitre is rare in maritime communities, where iodine is present in sea air and in vegetables grown on coastal soil.

Inland, here and there, the disease is fearfully common among young girls and we believe increasingly so. With our present knowledge and means, such prevalence seems unnecessary. Probably not enough is being done in a preventive way, nor sufficiently aggressive measures taken in the beginning. Goitre Special Tablets, supplied by the Columbus Pharmacal Co., 330 Oak St., Columbus, Ohio, are said to be effective. For formula, clinical data, etc., address the company.

The present interest in the vitamines has resulted for one thing, in bringing codliver oil to the fore. We have known and appreciated its value all along but not perhaps as we should. At any rate, we have a higher regard for this food-medicine now that we are told by laboratory workers that it is one of the few oils rich in the fat-soluble (A) vitamine.

Since the war, which in its wake left many sections of Europe impoverished, a great many rachitic children have been successfully treated with codliver oil, improvement being observed in such children almost from the first. The same results are not possible with cottonseed or other vegetable oils.

In conditions of low nutrition generally an emulsion of this valuable oil is a recourse not to be overlooked. Hydroleine is by many considered to be the choice of such preparations, the least objectionable to the palate, the most acceptable to the stomach.

High blood pressure is virtually always a danger signal, a voice of warning. It may be the first noticed indication of serious disease. This can be said without subscribing to the intimation that it is always cause for alarm.

Therefore, the physician who looks for it in patients presenting for examination, as part of his routine, is wiser than one who does not. Having found hypertension, he has usually made a discovery vital to the diagnosis and vital to his patient. The subject is fully and readably treated in the publications of the Drug Products Co., Inc., 156 Meadow Street, Long Island City, N. Y. These are free to any doctor on request. Simply write the company, at the address named, requesting to be put on its mailing list.

Suppositories. Do doctors generally appreciate the fact that indicated remedies in many cases may be advantageously administered in suppositories? We think not. And that is unfortunate. Without meaning to encourage a vogue, or to carry the thing too far, it seems that this form of medication deserves more consideration by prescribers.

To be sure suppositories are not infrequently used for treating rectal ailments, as hemorrhoids, fissure, etc. But they are not to be restricted by any means to the application of remedies locally. There are a number of drugs from which systemic effect may be ob-

TESTOGAN

For Men

THELYGAN

For Women

Formula of Dr. Iwan Bloch

After eight years' clinical experience these products stand as proven specifics.

INDICATED IN SEXUAL IMPOTENCE AND INSUFFICIENCY OF THE SEXUAL HORMONES

They contain SEXUAL HORMONES, i. e., the hormones of the reproductive glands and of the glands of internal secretion.

Special Indications for Testogan:
Sexual infantilism and eunuchoidism in the male. Impotence and sexual weakness. Climacterium virile. Neurasthenia, hypochondria.

Special Indications for Thelygan:
Infantile sterility. Underdeveloped mammae, etc. Frigidity. Sexual disturbances in obesity and other metabolic disorders. Climacteric symptoms, amenorrhea, neurasthenia, hypochondria, dysmenorrhea.

Furnished in TABLETS for internal use, and in AMPOULES, for intragluteal injection.

Prices: Tablets, 40 in a box, $1.75; ampoules, 12 in a box, $1.80

EXTENSIVE LITERATURE ON REQUEST.

CAVENDISH CHEMICAL CORPORATION

Sole Agents

295 Pearl Street *Established 1905* **New York**

Averting the "Sick Attitude"

TO treat the patient, to cure him, yet to leave him with a "sick attitude," is sounding the "call back" before the fire is fully extinguished. Psychology must be reckoned with in medicine.

What flashes through the mind of your patient when you pronounce: "Cut out Coffee!" Doesn't that patient's mind immediately interpret that dictum as "I'm seriously sick!"

Perhaps he is; perhaps his case *is* one of the *very few* in which Coffee *may* be contra-indicated. Then, certainly, rule it out. But why make the pronouncement a *general* one without first determining the facts, without first determining that the etiology, the symptomatology, the diagnosis of each individual case point to Coffee as even a *possible* pathologic factor? Doesn't such a course tend toward a "sick attitude" in many, many cases where none should exist? Wouldn't it be better to avert this attitude where possible by ruling out Coffee *only* in those cases where facts really contra-indicate its use? Prophylaxis is the better treatment!

Then, too, Coffee may be just the therapeutic aid you seek. For instance, Dr. Walter A. Bastedo, of Columbia University, in his book, *Materia Medica, Pharmacology, Therapeutics, and Prescription-Writing*, says: "Coffee results in a prompt increase in the amount and the acidity of gastric juice, and it is a well-known fact that on the intestines the beverage acts as a laxative, promoting peristalsis."

Cutting Coffee from the regimen suggests seriousness to the patient. Why do it without warrant in fact? Adding Coffee to your armamentarium is profiting by the experience of others.

Joint Coffee Trade Publicity Committee, 64 Water Street, New York, N. Y.

tained more favorably than if the same remedies were given by mouth, especially when the stomach from gastritis or otherwise is easily upset. The catalog of the Bierstedt Suppository Co., specialists in their line, is interesting. When writing, direct letter to 2919 Sheffield Ave, Chicago.

Results from iodine. The Abbott Laboratories, Chicago, have always contended that Calcidin is well borne by the stomach and not likely to cause acne, which cannot be said of most iodine preparations. A recent writer (Ecl. Med. Jour., May, 1922) heartily agrees. He commends it for syphilitic conditions, citing a patient with numerous ulcerations which although indolent healed nicely under Calcidin. It is likewise an effective remedy for skin eruptions and conditions popularly referred to as scrofulous. In all such cases he believes it to be the best substitute available for potassium iodide.

Farther along, he upholds Calcidin as an excellent remedy in goitre, bronchitis, rhinitis, etc., and admits having had the best of results from the remedy in simple croup.

Senility. Napoleon ate daily the brains of a freshly slaughtered ox from the notion current in his time that such a diet would increase and sustain his mental vigor.

Interest still persists and the belief holds that the idea is valid, namely the idea that the several glandular extractives or hormones from animal sources are of value to man when he arrives at the age when his own glands fail to secrete properly. Especially do we seek to combat senile changes by supporting the work of the sexual and associated glands.

The Marvell Pharmacal Co., 31 Union Square West, New York City, supply a preparation of great value, containing pituitary 5%, ovarian 40%, thyroid 10%, testicular 45%. Users report excellent results from its administration.

Not alive merely but actually growing is the idea given us sometime ago by Macht, represented by benzyl therapy. In dysmenorrhea due to spasm of the uterine muscle, and in several similar conditions, it is giving excellent results; more than 80% of such cases are said to respond to it nicely. So far the reports refer mostly to the benzoate, the salt originally brought forward for the use of the practicing physician and the one first investigated as a non-opiate anodyne and antispasmodic. Since then, Frederick Stearns & Co. have introduced benzyl succinate. This is a white crystalline powder, practically devoid of taste and odor. It is supplied in five-grain tablets and is said not to nauseate even in the fairly large doses recommended. Frederick Stearns & Co., Detroit, Mich., are offering samples.

Sterilizing instruments. For one doing any surgery at all, and certainly for one who does a great deal of surgery, facilities are necessary for sterilizing instruments. Once a tin basin

A *Treatment* for Diabetes (Mellitus) That Is Really Making Good

DIABETTEX

Purely a vegetable compound, "free from added sugars, starches, preservatives, saccharin, alcohol, narcotics, habit-forming drugs and deleterious substances." (*From report on analysis by the Analytical and Bacteriological Laboratory of Bendiner & Schlesinger.*)

The checking up of cases through analysis by the Physicians Diagnostic Laboratory (with which we have no connection) reveals a gradual reduction of sugar elimination, one case having been reduced from 6% to "absent" within six weeks. Details of cases on request owing to our gratuitous co-operation through laboratory urinary analysis, it is recommended that, where possible or convenient, the physician send his patients to us for the filling of prescriptions for Diabettex.

DIABETTEX is advertised to physicians only and is never sold to patients direct. Interesting literature to be had for the asking.

DIABETTEX comes in the form of a powder, which is dissolved in water for use.

Sudermann & Co., Inc.
237 Lexington Ave.
NEW YORK CITY, N. Y.

A Normal Colon

A Spastic Colon. Darkest Portion Shows Dilatation. Arrows Indicate Spastic Condition.

Dilatation and spasticity

A prominent authority of international reputation who has made an exhaustive study of the therapeutic value of Liquid Petrolatum says that laxatives of all sorts increase the spasticity of the intestine, whereas liquid petrolatum lubricates and protects the sensitive surface of the spastic bowel, at the same time softening the intestinal contents so as to permit passage through the bowel without mechanical irritation.

NUJOL is especially suitable for all forms of intestinal constipation. It is the achievement of an organization of fifty years' experience in the making of similar products.

Nujol is scientifically adapted by both viscosity and specific gravity to the physiology of the human intestines. In determining a viscosity best adapted to general requirements, the makers of Nujol tried consistencies ranging from a water-like fluid to a jelly. The viscosity of Nujol was fixed upon after exhaustive clinical test and research and is in accord with the highest medical opinion.

Sample and authoritative literature dealing with the general and special uses of Nujol will be sent gratis. See coupon below.

Nujol

REG. U.S. PAT. OFF.

A Lubricant, not a Laxative

Nujol Laboratories, Standard Oil Co. (New Jersey)
Room 768, 44 Beaver Street, New York

Please send booklets marked:

☐ "In General Practice"
☐ "A Surgical Assistant"
☐ "In Women and Children"
☐ Also sample.

Name_____

Address_____

upon the stove served for this purpose or was made to serve; possibly some benighted people are still resorting to this crude device, for better or worse.

But not many. The surgeon of today, schooled in advance technique, inclined to consider any appliance or drug that will help him do better work and more of it, appreciates an electric sterilizer, such as the "American, Jr." This is small enough for average needs and large enough to be practicable. It is ready at all times and does not have to be closely watched. It never boils dry.

Those interested should write to the American Sterilizer Co., 200 Fifth Ave., New York City, for particulars.

Brushing up. To those of our readers who contemplate taking a short post-graduate course in surgery we recommend the clinic conducted by Dr. Max Thorek, in Chicago. The course may be as short or long as one desires, that is one month or several months. This is optional with the applicant. Inquiries should be directed to the American Hospital of Chicago, Irving Park boulevard, at Broadway.

Dr. Thorek's clinic is not too large as are some of the older ones. The student gets personal consideration. He is permitted actually to assist in the operations performed. He learns by doing rather than as a mere onlooker on the fringe of a crowd, as at the larger clinics. Just the place for perfecting oneself in advanced surgical technique, in any department of surgery, or qualifying for operative work, it seems to us. The hospital affords plenty of material to draw from, and the fees asked are reasonable.

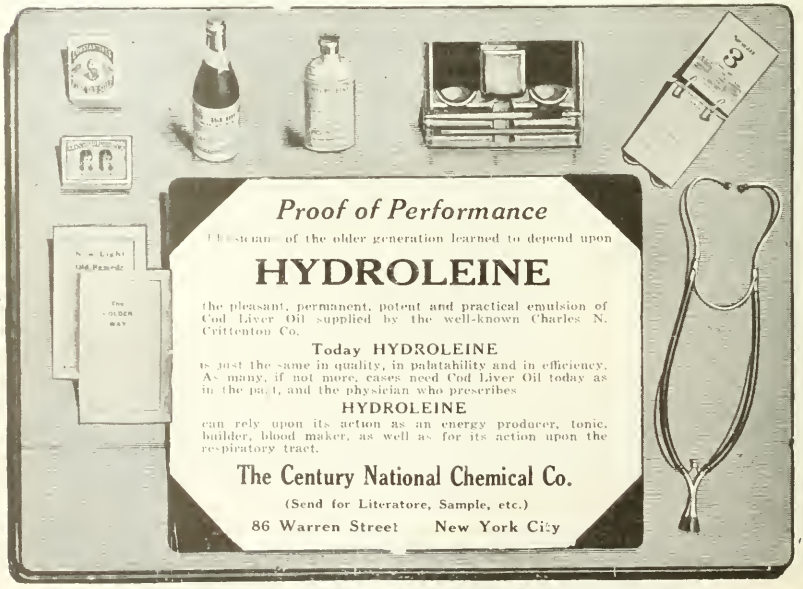
For menstrual disorders. As we have said elsewhere, a large proportion of our women are subject to distress at the periods, from one cause or another, in some instances assignable, in many others not so.

A prescription often useful at such times, and between times to forestall it, contains apiol, ergot, savin and aloin. This combination is widely known as Ergoapiol, which is from the laboratories of Martin H. Smith Co., New York, and is one of the high-class proprietaries which for years and years has been used in large quantities. It is supplied in soft gelatin capsules, twenty in a box.

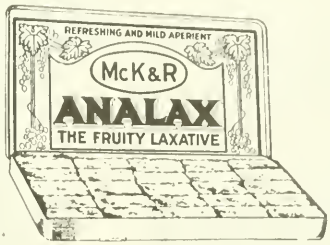
From the beginning Ergoapiol has remained an ethical preparation in the sense that it is meant exclusively for the prescriber.

It is to be remembered in mentrual irregularities affecting not only young females but women just before the climacteric.

For relief of those distressing nervous symptoms that come with the menapause, natural or postoperative, such as hot flushes, asthenia, headaches, dizziness and so forth, as well as some skin troubles showing at this time,


Proof of Performance
Physicians of the older generation learned to depend upon
HYDROLEINE
the pleasant, permanent, potent and practical emulsion of Cod Liver Oil supplied by the well-known Charles N. Crittenton Co.
Today HYDROLEINE
is just the same in quality, in palatability and in efficiency. As many, if not more, cases need Cod Liver Oil today as in the past, and the physician who prescribes
HYDROLEINE
can rely upon its action as an energy producer, tonic, builder, blood maker, as well as for its action upon the respiratory tract.
The Century National Chemical Co.
(Send for Literatore, Sample, etc.)
86 Warren Street New York City

McK & R



Why Not Give the Children the Best Laxative—In the Most Palatable Form?

THOUSANDS of medical men have found that Analax, the pleasing laxative, is the most effective for treatment of constipation in children.

The combination of phenopthalein, with agar-agar and delicious fruit juices is absolutely dependable for results, without the slightest danger of producing any griping or irritation.

Children take the delicious Analax Pastilles as readily as candy. So why punish them with castor oil or disagreeable tasting laxatives?

If you are not yet familiar with Analax, Doctor, send your card or letter-head, and we will be very glad to forward you samples for trial in a number of cases.

McKESSON & ROBBINS

INCORPORATED

Manufacturing Chemists

Established 1833

91 Fulton Street NEW YORK CITY

ovarian substance from a reliable source is recommended. It should also be remembered for delayed or suppressed menstruation, especially when occurring early in life and associated with tardy development of the female generative features. In functional amenorrhea it frequently does good work; after ovarian operations; and, in beginning goitres, along with iodine, in young girls.

Rorer's preparation is preferred by many careful prescribers. Each capsule contains: whole ovarian substance, grs. 2; lecithin, gr. ½; hemoglobin, grs. 5. Keep this excellent hormone preparation in mind.

Attention is called again to the excellent work now being done by Dr. Howard Plank along the line of physiotherapy. We refer to his three-weeks course of clinical instruction for physicians. Here is a rare opportunity for those who want the essential and entirely practical details, personally given and demonstrated, to supplement ordinary book knowledge. Dr. Plank is a born teacher, a facile demonstrator. Time spent with him will be spent profitably. In the few weeks allotted to the course the use of the actinic rays and other electro-therapeutic measures, applied to cases, is lucidly covered.

Inquiries may be addressed to the doctor's offices, 1612 Heyworth Bldg., Chicago.

So long as there is pain the physician must be prepared to relieve it with the best anodynes at hand. And, as the days of laudanum are past, and the prejudice against opiates strong, now that we know opiates to be more fearsome than formerly, he has to resort to other expedients, expedients that are less dangerous than this class of pain-relieving agents, both from depression and from the habit-forming tendency.

Of course, the coaltar anodynes are not as harmless as sugar but the degree to which they are depressing or otherwise objectionable depends very much on how they are given. If given with strychnine sulphate and in reasonable dosage acetanilid, for example, is reasonably safe. The National Drug Co., of Philadelphia, supply a combination that is said to serve nicely, under the name of Nialgen; the tablets contain acetanilid along with strychnine sulphate, gelsemium and strontinum salicylate. Users find them very satisfactory for relief of pain in headaches, ovarian neuralgia, etc.

Radium is useful in practice to an extent not generally appreciated. Rodent ulcer seems readily to yield to treatments with this agent. So does lupus vulgaris. And again, so do papillomata and certain chronic skin diseases, in many cases at least, as psoriasis, pruritus and lichen planus. Nor does this by any means define its usefulness.

But its cost militates against it and against the benefits that might more often than now be had for the patient. So it appears at first glance. And still radium for treatments almost

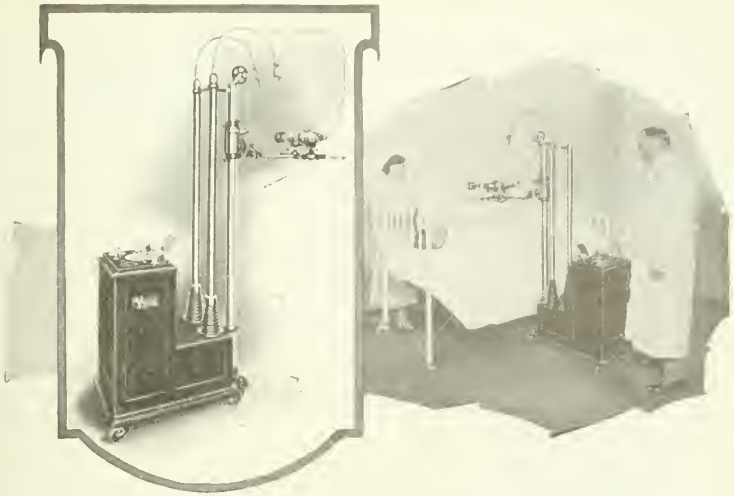
"Sedatole"—"Linctus Comp"—"Hyotole"

three admirable demulcent expectorants of which **we are now shipping large quantities** to the drug-trade in anticipation of your urgent requirements this fall and winter when, owing to the shortage of coal, "flu," pneumonia, bronchitis, etc., are liable to occur in your practice, perhaps epidemically. If you send in for samples **please mention your Fed. Lic. No.**—this only for our records. None needed when you prescribe them; just keep records.

Ethical Expectorants

SHARP & DOHME, Baltimore

Conscientious Chemists Since '60



This New Victor X-Ray Outfit Is Radically Different

It Is a *Stabilized* Mobile Unit

What the Stabilizer Does

When the voltage of the line supply current fluctuates (this condition prevails on practically every line) the Victor-Kearsley Stabilizer, incorporated in this unit, acts *automatically* to hold the milliamperage constant in the Coolidge Tube—the exact milliamperage desired for the radiograph. 100% radiographic results are therefore insured—no "retakes" necessary because of fluctuating line supply.

Control Features

Auto-transformer allows selection of any penetration desired from 3 to 5 inches, divided into 26 steps—a fineness of graduation that is distinctive in this outfit. The stabilizer permits selection of any milliamperage from 2 to 30, at any setting of the auto-transformer. A chart on the control board helps the operator to obtain instantly any current value.

Circuit Breaker Safety Device

In case of "overload" beyond the capacity of the tube (30 Ma. at 5" back-up spark) this device *automatically* shuts off current supply, preventing damage to tube and apparatus. Consider also the importance of this from the standpoint of protection to both operator and patient, in case of accidental contact with the high tension system.

A Complete X-Ray Unit

Where only limited space is available in the physician's office, the compactness of the Victor Stabilized Mobile X-Ray Unit solves the problem. Mounted on casters and easily moved about, it lends itself to varied demands. It also becomes an extremely valuable addition to any existing hospital equipment.

The Victor-Kearsley Stabilizer is one of the most important X-Ray developments since the advent of the Coolidge Tube itself. It should not be confused with other devices which tend to stabilize only the current to the filament of the tube. The important advantages of this unit are fully explained in a special bulletin, which we will gladly send you on request.

VICTOR X-RAY CORPORATION, Jackson Blvd. at Robey St., Chicago

Sales Offices and Service Stations in All Principal Cities

VICTOR

anywhere may readily be procured as a loan for any reasonable period, from the Frank Edward Simpson Radium Institute, 59 East Madison Street, Chicago. At this address is always an ample stock of radium, as well as accessories of every sort for its application.

Milk proteins. Certain proteins, as those derived from milk, have been observed to cause leucocytosis and other changes in the blood when injected intramuscularly. The defensive forces of the body are stimulated thereby and with telling effect, it is said, against a number of circumscribed lesions. Dr. Edw. Ahlswede (Arch. Syph. and Derm. May, 1922) names sycosis, some forms of eczema, furunculosis, buboes, erysipelas, arthritis, epididymitis, among the lesions that can be successfully treated with milk protein injections.

In Europe, quite remarkable clinical success has been reported by Bruch, Muller, Forster and other physicians of note. A reliable preparation, in glass ampules, is being put out by The Abbott Laboratories, Chicago.

There's a story of an old druggist who used to say every time he proceeded to fill up the prescription bottle with distilled water, "Well, here goes the profit."

A similar statement has been made in reference to the water content in milk. From an economic as well as a dietetic standpoint, the 87% of water in ordinary cow's milk might be regarded as useless. Hence the practical advantage of using milk solids in dry form.

There are several milk powders on the market, among them Dryco. Dryco is a pure, uniform, dried milk, produced by the rapid heating process. Within six hours after it comes from the cow, the milk is passed over large steel rollers heated to 212° F. The time required to change the milk, as such, into a dry, flocculent powder is only two seconds.

Dryco is easy to prepare and economical to use. Many physicians are acquainted with its value for infant feeding and in the feeding of acutely ill, convalescent or invalid patients. It is well worth the while of every physician who does not know Dryco to send for interesting literature regarding it, and for copies of a booklet "The Doctor's Rubaiyat," which will prove both entertaining and interesting. Requests to be sent to the Dry Milk Company, 15 Park Row, New York, N. Y.

Despite the heat thirty-five Doctors gathered at the sales rooms of the McIntosh Electrical Corporation, 223-233 N. California Ave., Chicago, Illinois, September 4th to 9th, to attend a class in Electro-Therapy conducted by Homer Clark Bennett, M. D., with the cooperation of Doctors T. Howard Plank, S. F. Casenburg, Noble M. Eberhart, Mel R. Waggoner, Jacob Faltermayer and C. M. Deem.

Their enthusiasm was so marked that they did not miss a minute of the time allotted or a word of the instruction imparted. The field was pretty thoroughly covered. There were

Campho-Phenique

A POWERFUL GERMICIDE

A host of germicides command attention through sheer merit. Any one that stands out among them with particular conspicuousness does so because of exceptional value and because it has demonstrated its superior worth beyond question.

CAMPHO-PHENIQUE rules among its kind because it is superior to them in actual searching tests. As a germicide CAMPHO-PHENIQUE is positive in effect, economical and uniform in action.

As a first aid dressing CAMPHO-PHENIQUE is the logical choice, owing to its continuous germicidal action and anodyne effect.

The properties possesed by Campho-Phenique make it the ideal dressing for all surgical wounds. It prevents infection and hastens healing.

Keep a supply of CAMPHO-PHENIQUE on hand for all antiseptic purposes.

Samples mailed on request.

Campho-Phenique Co., St. Louis, Mo., U. S. A.

Atophan

THAC. MARK

Rheumatism
Gout
Neuralgia
Neuritis
Sciatica
Lumbago
Migraine

What shall it profit the patients?

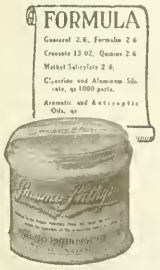
to have their sufferings relieved, if it's done by throwing into their most vital body machinery a monkey wrench like colchicum, the salicylates, or the old-time coal-tar derivatives, — heart-depressants, kidney-irritants, intestine-disturbants.

Genuine ATOPHAN devoid of all these drawbacks is manufactured at our Bloomfield, N. J. plant by a special process, precluding the possibility of even traces of unpleasant empyreumatic admixtures.

Complimentary Trial Package and Information from

SCHERING & GLATZ, Inc.

150 Maiden Lane, NEW YORK



Pneumo-Phthysine

A glance at the formula of PNEUMO-PHTHYSINE will at once suggest its mode of action, as also the numerous indications for its clinical application. The antibacterial properties of all the drugs contained in PNEUMO-PHTHYSINE are well established. In addition, guaiacol and quinine tend to reduce fever temperature; methyl salicylate lessens pain; quinine also promotes healing.

PNEUMO-PHTHYSINE is indicated in all localized and painful inflammatory conditions.

The fact that all the active drugs contained in PNEUMO-PHTHYSINE are readily absorbed through the skin; that they are taken up into the circulation and exert their characteristic effects, both locally and systemically, will be discussed in detail in the Fall, 1922, issue of Endermic Medication, which will probably appear early in September.

Ask for your copy now.

Pneumo-Phthysine Chemical Co. - - Chicago, Ill.

demonstrations of high frequency work, sinusoidalization, ionization, electrolysis, catalysis, etc., accompanied by lectures by experts. The course will be repeated, on request of many who were unable to attend. This time it will be given in Detroit, Nov. 20 to 25, 1922. For particulars write to the McIntosh Electrical Corporation.

Where nature won't Pluto will, is the promise of the people who bottle this celebrated mineral water. In general, mineralized waters are less frequently used in this country than abroad, although our best are beginning to be appreciated as they should and more often prescribed.

Analysis shows Pluto Water to be rich in sulphuretted hydrogen; hence it may be classed as a sulphur water. But also it carries a fairly large proportion of sodium salts, chiefly the sulphate and chloride. The sulphate and carbonate of magnesium are also present, in lesser quantities. It is therefore to be valued as an eliminant in certain bowel and liver disorders and conditions secondary to retention of undigested food residues. Prescribers should keep it in mind. A sojourn at its source, French Lick Springs, may well be advised for patients who can afford the time and expense. For others a supply is always available at drugstores.

Anyone who thinks that a large laboratory, with a lot of costly equipment, is necessary for determining the essential diagnostic features in urine is deceived.

For example, sugar can be detected readily with F. A. F. Sugartest Strips, supplied by the Franco-American Ferment Co., 225 Sixth Ave., New York City. It takes less than a minute to do so. Simply drop a strip into a test-tube or any porcelain or enamel dish; add a little water and a few drops of urine; boil a little while and the thing is done. If the liquid under examination turns yellow, sugar is present. Nor is there any question about it. For this test is ten times more sensitive than Fehlings Solution.

To make a quantity analysis of a sample of urine, the doctor may use the F. A. F. Sugartest Tubes, furnished by the same company. The quantitative test with these tubes can be made in three minutes. So simple are both tests that they can be made at the bedside.

Mercury. Those who have gone through the gamut of mercury salts in a long experience with syphilitic patients, without the feeling that they are getting the best possible results may do well to try the salicylarsinate of mercury, that is if this salt is one they have not yet employed.

Many like it tremendously, prefer it, and indeed will consider no other. Its toxicity is said to be 70 times less than that of the biniodide. It is given hypodermically, either into the muscles of the veins. Injections are

"When you're thirsty it's too late to think about digging a well."

Confronted by the condition known as ascites or anasarca, the primal consideration is how best to strengthen the heart, overcome circulatory stasis, promote resorption of effused fluid and its removal from the body. Diuretic action alone is usually insufficient.

But **ANASARCIN TABLETS** bring about increased strength of cardiac contraction, regulation of cardiac rhythm, dilatation of the arterioles, more thorough circulation, more complete elimination of urinary solids as well as fluids.

Test ANASARCIN TABLETS in

Cardiac Valvular Disease (lost compensation), Chronic Bright's Disease, Post-Scarlatinal Nephritis, Albuminuria of Pregnancy, Hepatic Cirrhosis, Exophthalmic Goitre, Cardiac Neuroses.

Samples, literature, case reports to any physician.

The ANASARCIN CO. Winchester, Tenn.

Catarrh and Common Colds

For prevention and treatment use

Catarrh "Cold" Serobacterin Mixed, Typho-Serobacterin Mixed, and Pertussis Serobacterin Mixed are now supplied in Mulford Hypo-Units, ready for immediate injection. No assembling, no sterilizing, no adjusting, used only once. Insert the needle and compress the tube. *Four injections—four dollars.*

Catarrh "Cold" Serobacterin Mixed

in Mulford Hypo-Units

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Wayne County Medical Society Bulletin	1,800
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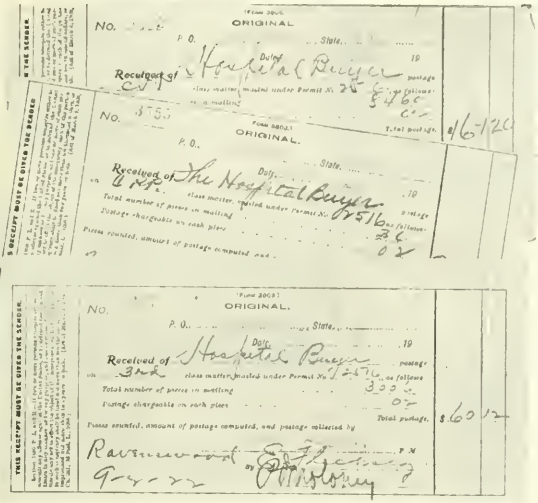

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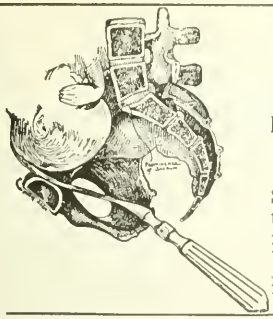

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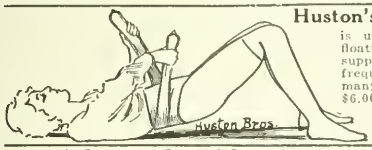

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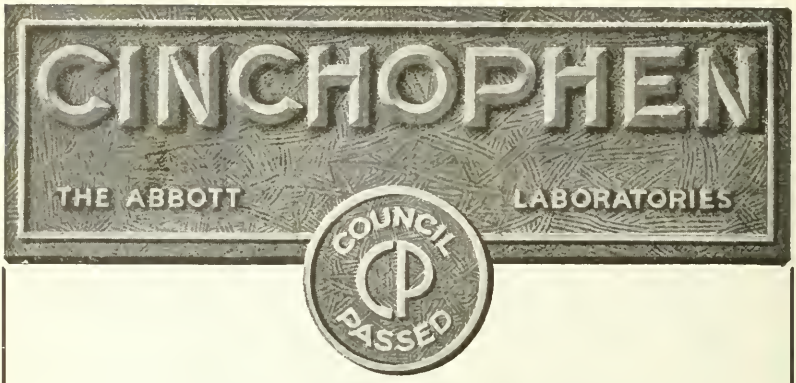

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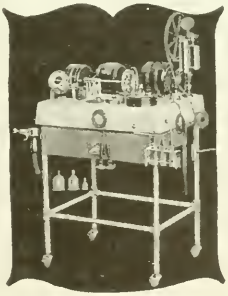

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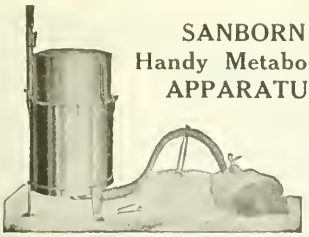

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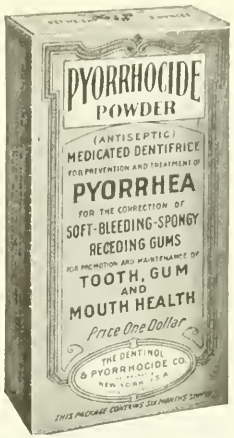

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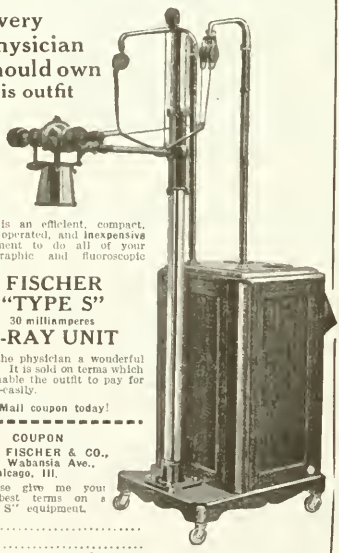

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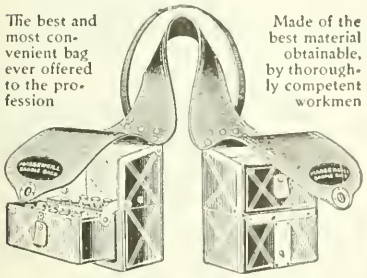

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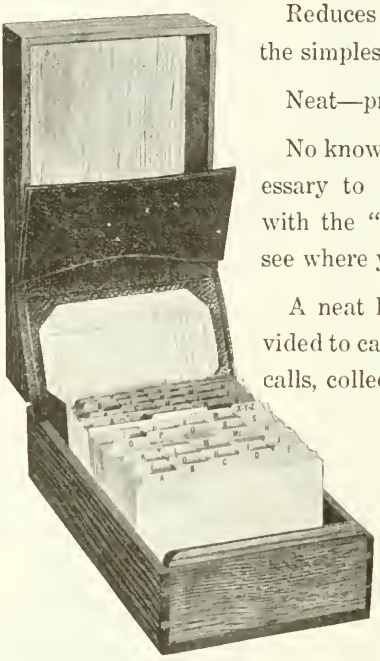

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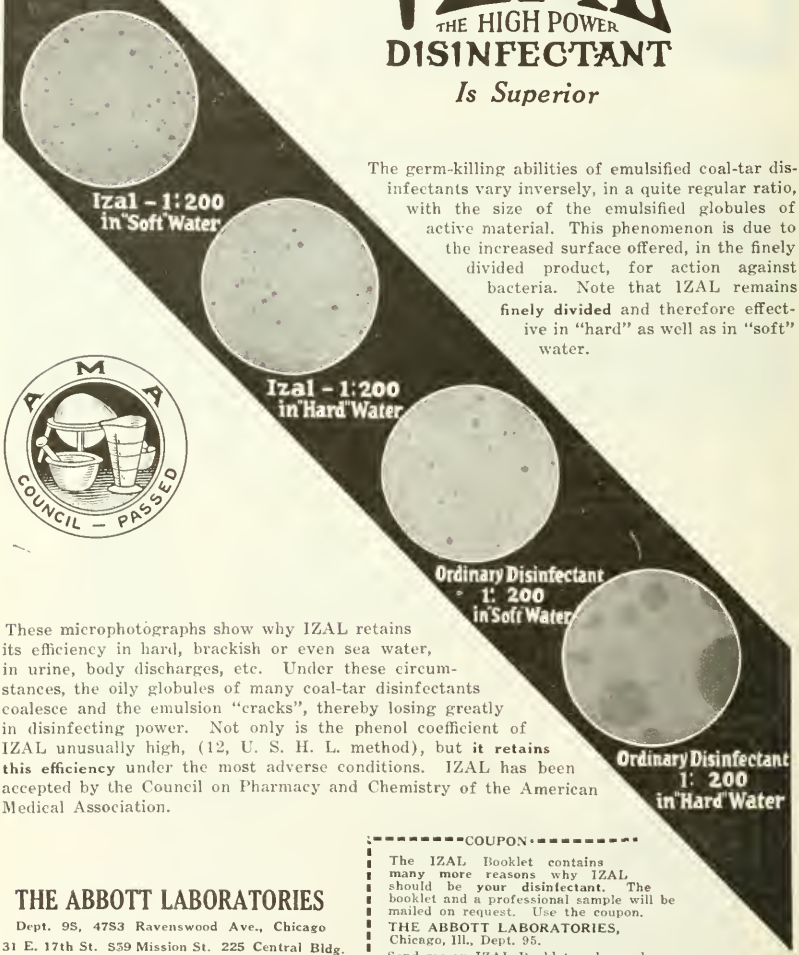
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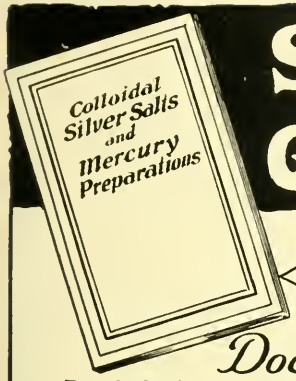

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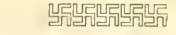

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